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Human Resources

A Report Submitted to the National Resources Committee
by The American Council on Education*

I. THE IMPORTANCE OF HUMAN RESOURCES

THE value of a civilization must be tested ultimately in its human product. A land may be rich in soil, water and minerals, but, if its people lack basic capacity for development, that nation is properly regarded as among the backward. Conversely, a land which is poor in most of the resources of earth may be among the leaders of mankind if its citizens are vigorous in health, alert in mind, rich in creative genius, and able to cooperate effectively for worthy ends.

A chorus of confirmation can readily be brought from many competent sources. The economist, Veblen, writes that—in the hands of men who do not know their use, all our vast wealth of capital goods would be simply raw materials somewhat deranged and impaired.

The statistician, Dublin, has estimated the value of our human resources in the United States at some 1,500 billion dollars—a sum five times the total of what is usually regarded as our national material wealth. The biologist, Conklin, has classed among the great tragedies of life—

the loss of real personalities who have all the native endowments of genius and leadership, but who for lack of proper environmental stimuli have remained undeveloped and un-

* In 1934 the American Council on Education was requested by the National Resources Committee of the Federal Government to appoint a committee to outline possible and desirable projects for the development of human resources. President E. C. Elliott, Purdue University, Dr. Walter D. Cocking, State Superintendent of Education of Tennessee, and Professor E. L. Thorndike, Teachers College, Columbia University, were selected by the Council to cooperate with the National Resources Committee. Dr. Goodwin Watson, Teachers College, Columbia University, prepared this report, which was submitted in June, 1935.

known; the Caesars, Napoleons, Washingtons who might have been; the Newtons, Darwins, Pasteurs who were ready formed by nature but who never discovered themselves.

President Roosevelt, in his telegram of greeting to the National Student Federation of America, wrote:

This administration has been engrossed perforce in the problems of economic recovery. I am fully aware, however, that economic recovery is ultimately to be appraised in terms of the enrichment it makes possible in human lives. Human resources are above physical resources.

To the benefits of a far-sighted program for conserving our material resources should be added the corollary contribution from a program designed to realize the full possibilities of our human resources. Natural resources are essential to support life, but they take on significance only when people have been educated to desire them, and after trained human skill has formed them.

Material resources, once used, may be exhausted, but through wise development human resources are multiplied. Culture begets more culture. One hundred homes lifted to a new high level of health, insight, appreciation and character will confer benefits upon children's children. Neglect of human resources is likewise multiplied in its tragic consequences. A lost generation cannot be salvaged or replaced.

There is appalling evidence of neglect and waste of human resources in the United States today. The most conspicuous example is found in more than ten million citizens, able in body and mind, who are now given no opportunity for employment. The number of adults who have jobs, but who are, in some degree, vocational misfits, is probably even larger. Fully 10 per cent of our population belong to minority races who find their maximum development hampered by restricted opportunities or by well-meant paternalism. Millions of women are contributing less than they might to society because of the lack of opportunity to work out a suitable combination of career and home-making.

Voting is surely only a minimal standard of citizenship,

but thirty million adults do not so much as vote even in our most exciting elections.

Few adults normally function at more than a fraction of their potentialities. They suffer preventable illness due to unhygienic habits of living. They carry into daily relationships inner irritations and infantile emotional patterns which create endless, unnecessary difficulties. They blunder in ordinary responsibilities, in part because of the enormous lag in the content of their education behind the modern state of affairs. At age fifteen, perhaps, they studied a text which itself represented scholarship of at least ten years before that. Now, at age fifty, the same persons may be trying to adjust in terms of knowledge and concepts which are wholly inadequate and half a century out of date.

Even opportunities, commonly taken for granted, do not reach all children. Less than one-fourth of the child population receive such minimum health service as annual physical examinations, vaccination, and diphtheria immunization. At least three million children of school age are not in school at all, due to handicaps, and in some cases to the fact that no school is provided near them. In 1931-2, in urban areas, 1 of every 22 pupils attending schools was enrolled in kindergarten; in rural areas only 1 of every 147 enrolled was registered in kindergarten.

There is certainly room for doubt as to how far children in school are receiving the kind of education which will fit them to meet the problems of the modern world. Graduation seldom requires buoyant health, happy emotional adjustment, readiness for successful home making, occupational fitness, capacity to enjoy leisure, and habits of serving the community. Within our sadly retarded high schools are some three million youths so different in abilities, interests, and future plans, from the traditional academic secondary school scholar, that their remaining school years promise to be largely futile.

In the United States we have 4,000,000 persons over ten years of age who have never learned to read and write. Most

of them could be taught, and worlds now closed could be opened to them. Other millions who can read a little have been so badly taught that they avoid reading so far as possible, and come off second best in every tough encounter with a printed page. Again, techniques are available which could bring about a substantial improvement, and the good effects would be cumulative.

Nine million persons are each year injured in accidents, many of which could have been prevented.

One child from each 20 now in school will spend some time in a hospital for mental disease. Some, at least, of this loss is preventable.

The special education needed by 90,000 crippled children, 45,000 visually handicapped children, and 3,000,000 with impaired hearing is still not provided. The outstanding achievements of a few handicapped persons emphasize the need to increase opportunities for others.

Speech defects, serious enough to be a social handicap, should be corrected among more than three million children and adolescents in this country, today.

Behavior disorders, which, in a dismaying number of cases, presage truancy, insanity, delinquency and crime, are being met generally with symptomatic and retaliatory treatment which bids fair to deepen the social maladjustment. Arrington's survey shows that 85 per cent or about 2,600 counties in the United States have no child guidance clinics.

Upon the relief rolls of this potentially the richest nation on earth, more than seven million children under sixteen years of age are now limited by relief budgets to a level of subsistence so low as to provide little opportunity for health care, education, recreation, and wholesale personality development.

Society loses most through its failure to give adequate opportunity to its most talented members. The arts and sciences advance primarily through the efforts of a very few persons. What we enjoy in civilization has been created mainly in the first instance by only two or three in a million among our

ancestors. The comon saying, "Genius will out," is a dangerous half-truth.

Through the handicapping influences of poverty, social neglect, physical defects, and educational maladjustments many potential leaders in science, art, government and industry are denied the opportunity of a normal development.¹

Toops has found in Ohio that the range of intelligence among high school graduates who do not go on into college is equal to that among college entrants.

Scholarships for the elite are inconsiderable in contrast to the huge sums now spent upon the dull, the vicious and the ill-balanced.²

There are very few forms of potential ability which can be recognized today while still latent. The only safe rule seems to be to give every child every chance. If this could be done, the results would doubtless astonish the world. Human beings are extraordinarily plastic. Cultures may operate to produce large numbers of peasants, robber barons, money-changers, or to increase the number of scientists or creative artists. Julian Huxley has reminded us that in the Elizabethan age every educated person had some musical competence; that in Athens ordinary citizens, not merely highbrows, enjoyed Greek drama; that the carvings on medieval churches were the work of local craftsmen; that Japanese write serious poetry as commonly as our citizens tackle crossword puzzles. Experience in progressive schools shows that most pupils, under appropriate stimulation, can write interesting poems or paint striking pictures or compose original melodies of merit. If, as a society, we very much wanted poets or musicians or scientists, we could probably produce more than we have ever thought to see in any one civilization. Anthropologists believe that individualistic, competitive attitudes are likewise in great degree produced by a culture which places

¹ Terman, L. M.

² Hollingworth, L. S.

a premium upon successful competition; that a culture which consistently encouraged, approved and rewarded cooperation would undoubtedly mold persons more able and disposed to cooperate. We do not know the ceiling for character development, but it is certain that no community in our land has approached all that might be done.

These many forms of neglect and waste are neither inevitable nor intentional. They are, for the most part, the consequence of lack of social planning.

II. SOCIAL PLANNING

Social planning should accompany economic planning. Human needs determine the use to be made of all available natural resources, technical equipment, and human ability. Every function of government in a democracy must be tested by its contribution to "the good life" for all citizens.

Human development may be viewed genetically as prenatal, infancy, childhood, adolescence, and maturity. At any period the whole task may be analyzed into such aspects as physical and mental health, vocation, recreation, family and community life. There are material aids to the realization of goals of living; food, clothing, houses, school plants, libraries, hospitals, museums, recreational centers, and parks. Good planning seeks to bring this material equipment into forms which will better accord with human wants. Services similarly are improved when parents, teachers, physicians, dentists, nurses, psychologists, architects, painters, writers, actors, designers, musicians, and scientists become better able to satisfy basic human needs.

Human needs should not be viewed as independent variables. They derive in part from a delicately interrelated organism, and in part from an equally interrelated culture. Changes in any part may have consequences all through the structure of the body or of the culture. It is the task of social planning to consider each change in its relationship to all the other factors involved. Any less comprehensive program runs into the danger that what is achieved on one count

may be offset by unanticipated losses at another. Too much good done for people may injure their capacity for independent action; knowledge may be fostered at serious cost to physical vitality; even the virtues need to be taken in moderation.

The material resources of our land need to be fitted into a balanced process for satisfying social needs. Usually the reverse has been true; the cart has been placed before the horse. "Exploitation or use of the natural resources of a given region," according to the Michigan Public Works Inventory and Program, March 1, 1935, "inevitably superimposes a set of sociological conditions peculiar to these same regions." The dominant purpose has been, in some communities, to cut timber, in some to exhaust the mines, in others to farm the soil. Men have hewed to that line, letting the human chips fall where they might. A common outcome is described by the New York State Planning Board (Summary Report of Progress, January 14, 1935):

Excessive congestion, lack of adequate open space for play and recreation, noise and danger incident to vehicular traffic, the invasion of trade and industry and the lack of agreeable surroundings are normally the basic causes of the blighting of residential areas in the larger cities. . . . Unfortunately the mistakes in community planning that have caused blight in the older areas are now being repeated in many of these newer outlying areas.

Because engineering has made more progress in dealing with physical objects than in dealing with people, the tendency has been to begin planning with natural resources of land, water and minerals, or with projects in building and construction. Generous portions of land have been allotted to recreational purposes, but relatively less attention has been given to finding out what forms of recreation children, youth and adults most desire and need. State committees on recreation have been set up, for example, composed largely of engineers, landscape and forestry experts, with no representa-

tives of such major forms of recreation as reading, gardening, play leadership, movies, drama, music, youth clubs, physical education or arts and crafts. Another illustration of this approach from the angle of physical planning is found in one state which sent out thirty-two field parties consisting of an engineer, a draftsman and a practical construction estimator, to survey the school buildings of the state. Many needed improvements could doubtless be located by such a survey, but wise planning would raise more fundamental questions. Are these school buildings well located with reference to pupils and economic support? Do the newer movements in education call for new forms of building? Should the school buildings be remodelled to make them community centers? After such questions have been answered, a given amount of human effort and of money investment might be used to produce much more valuable returns.

It is not implied that the physical planning has been carried on without reference to human needs. On the contrary, there is almost universal recognition of the interdependence of problems of land and water on the one hand, and matters of health, recreation, labor, education, public finance and government on the other. The course of some highways has been planned to give maximum scenic charm. An especially happy illustration has been the planning of main highways in New Mexico to pass at some little distance from the old Indian villages, not to be cut through them and cover them with a veneer of modern white culture. Reforestation has been planned not only to prevent erosion and to increase sales of camp equipment, but also as an antidote for city nerves and for delinquency.

What has not yet been done is the type of planning which begins with human life, centers attention upon opportunities and handicaps for the realization of richer and more abundant living. Beginning with personal and social values, it becomes possible to distinguish some alterations in the physical environment which are more essential and others which are secondary. Only in relation to some broad policies of human wel-

fare can economic planning, land use and public works find their proper place.

Approaches to social planning from the viewpoint of providing full expression for the needs and urges of the individual run into some danger of viewing the individual in false isolation from his social matrix. Approaches which regard human abilities or talents as too closely analogous to natural resources may fail to recognize the right of each person to be regarded as an end in himself. People, unlike minerals, exist to be served as well as to serve. Approaches in terms of present social institutions—families, schools, churches, factories, stores, newspapers, hospitals, prisons, etc.—may neglect the principle that man was not made for the Sabbath nor to be subordinated to any other social form. Institutions must be continuously modified and reconstructed to fit the needs of man.

The best division of the task of social planning seems to be one which provides constant attention to life as a whole. Life needs vary significantly with age, so sections dealing with infancy and childhood, with youth, and with adult years may well be differentiated. Within each broad age group there are functions which have both individual and social meaning—health, work, schooling, recreation, and citizenship, for example.

Good plans for health must take account both of individual drives and of social conditions. Wise plans for vocation must integrate provision for individual interest and provision to meet social need. Functions of this kind are good units for planning because they do not distort the individual-social relationship in either direction. Care must be taken, however, lest any such function be treated in isolation. Each must be seen as a part of whole and well-balanced living. Social planning is not achieved by the adding together of reports concerned with separate functions. The task of a childhood section, a youth section or an adult section is to adjust and interrelate whatever is proposed concerning any

particular function, so that it will make a maximum contribution to life as a whole.

III. ADMINISTRATION OF PLANNING FOR THE DEVELOPMENT OF HUMAN RESOURCES

Basic recommendation.—It is recommended: That some members of the National Resources Board, or its successor, shall be chosen because of primary competence in the development of human, as contrasted with material, resources.

That the Board, its sections, committees, and consultants, shall include some members trained primarily in biological, medical, psychological, anthropological, ethnological, sociological, educational, cultural and spiritual aspects of human welfare.

That regional, state and local planning boards shall provide in their personnel and staff for similar emphasis upon the primacy of human values.

That attempt shall be made to encourage as many local communities as possible to develop planning commissions, with a view to securing very widespread participation in continuous and comprehensive thinking about human welfare.

Organization of Sections and Committees.—It is recommended: That there shall be organized under the National Resources Board, or its successor, the following national sections, comparable to sections already organized on Land Planning and Water Planning:

A. Section on Human Genetics

B. Section on Childhood

Committees on:

1. Child health
2. Safety education
3. Opportunities for the handicapped
4. Nursery schools and kindergarten
5. Adjustment of schools to individual differences
6. School camps
7. Moving pictures and radio
8. Playgrounds and recreational leadership

C. Section on Youth

Committees on:

1. Standards and objectives
2. Inventory of agencies serving youth
3. Vocational adjustment
4. Recreation
5. Constructive citizenship
6. Schools

D. Section on Adult Life

Committees on:

1. Economic and social problems
2. Integrity of public information
3. Occupational re-training
4. The aged
5. Elimination of illiteracy
6. Consumer education
7. Parent education
8. Art of living
9. Citizenship

That there be added special advisory committees with responsibility for certain outstanding needs which cut across the work of the several sections. Among these the following are now recommended:

1. Special advisory committee on the reorganization and consolidation of local units of government, state equalization, and Federal aid.
2. Special advisory committee on community surveys relating social trends and educational planning.
3. Special advisory committee on the conservation of superior abilities: the selection, training and utilization of various talents.
4. Special advisory committee on the prevention of delinquency and crime.
5. Special advisory committee on personnel to aid in the development of human resources.

That, so far as appropriate, under regional, state and local planning boards there be established the four sections, their various committees, and the five special advisory bodies, parallel to the national organization.

Much of the legislation to make possible the conservation and development of human resources outlined in this report must come from the several states. Many projects can and should be planned by local agencies. The major responsibilities of a national planning board in connection with human resources should be to indicate broad and general lines of policy, to coordinate the many agencies within the Federal Government which now touch upon the problems of human welfare, and to initiate and encourage some enterprises which concern the nation as a whole.

There are, as is well known, numerous organizations engaged in the promotion of various aspects of human welfare. The task of planning boards is certainly not to supplant such agencies but to try to coordinate the many efforts in such a way as to insure balanced progress. The endeavor to keep the whole problem constantly in mind, and to relate the parts in their proper relationship to the general and comprehensive outline, is the unique contribution of social planning.

In the following pages the task of each section and committee has been outlined in enough detail to give some comprehension of the need, of the available data, and of certain projects which seem important and feasible to be undertaken in the near future. It is not supposed that these proposals by any means exhaust the enterprises which the various sections and committees might eventually find it wise to undertake. They are offered only as suggestions worthy of consideration at the present time. The suggestions and proposals have come to the American Council on Education from research workers and educators in many institutions throughout the United States.

IV. PROGRAM AND PROJECTS FOR THE SECTION ON HUMAN GENETICS

There seem to be reasons for concern lest present conditions shall result in an increase in the proportion of our population who are least well equipped by biological and cultural heritage. The Commission on Recent Social Changes reports:

The changes in number of persons per family between 1900 and 1930 varied markedly among the different groups. The greatest decline was among the families of the professional group, where it was 10 per cent. The proprietary group was next with 6 per cent decline, and the clerical group followed with a decrease of 5 per cent. The families of the skilled and semi-skilled workers showed a decrease of 3 per cent, while those of the unskilled decreased by 1 per cent. The families of the farm owners also decreased by 1 per cent, but the families of the farm renters and of the farm laborers increased, the former by 5 per cent and the latter by 13 per cent.

The Wisconsin Regional Planning Report (1934, p. 100) has found the highest birth rate in the regions of scattered population, low assessed valuation, with seriously inadequate educational opportunities.

Maller³ studied 275 areas of New York City in 1930 and found the following correlations with birth rate:

	<i>Correlation with birth rate</i>
Intelligence Quotient.....	$r = -.34$
School Progress.....	$r = -.30$
Juvenile Delinquency.....	$r = .28$

A more extensive study has been made by Lorimer and Osborn⁴ based on intelligence quotients of children in small towns of New York State, reported by Haggerty and Nash.

The following table indicates that, if conditions prevailing in the 1928 birth statistics were to continue for the next generation, we might expect during a single generation a decrease of 12 per cent in the "genius class" and an increase from 5 per cent to 9 per cent in the various grades of feeble-minded:

³Maller, J. B., "Vital Indices and Their Relation to Psychological and Social Factors," *Human Biology*, 1933, 5: 104.

⁴Lorimer, Frank and Osborn, Frederick, *Dynamics of Population*. New York, Macmillan Co., 1934. Page 190.

INFLUENCE OF DIFFERENTIAL REPRODUCTION BY OCCUPATIONAL CLASS, ON
EXPECTED DISTRIBUTION OF INTELLIGENCE QUOTIENTS OF UNITED STATES SCHOOL
CHILDREN IN TWO SUCCESSIVE GENERATIONS

Hagerty I.Q. Classes	First generation	Second generation	Change
	Per cent of total	Per cent of total	Per cent
140 and over.....	1.71	1.30	-12.3
130-139.....	3.23	2.88	-11.4
120-129.....	7.17	6.46	-9.9
110-119.....	11.91	11.44	-3.9
100-109.....	17.24	16.93	-1.8
90-99.....	21.28	21.64	+1.6
80-89.....	18.67	19.31	+3.4
70-79.....	12.01	12.63	+5.4
60-69.....	5.30	5.61	+5.8
50-59.....	1.46	1.59	+8.8
All classes.....	100.00	100.00	
Median.....	I.Q. = 95.90	I.Q. = 95.01	-0.89 I.Q. points

Collins⁶ found within any given occupational group of an Ohio city (population 45,000) that the large families were associated with inferior intelligence. This relationship was similar for professional, managerial, clerical, trade, skilled and unskilled labor groups.

Chapman and Wiggins⁷ found among the public school children of Meriden, Conn., a correlation of $-.33$ between size of family and I.Q., also a correlation of $-.27$ between size of family and socio-economic status as measured by the Chapman-Sims scale. If American origin families were separated from foreign origin families, the correlation of I.Q. and size of family remained as high as $-.22$ in each case. Lentz⁸ studied 4,330 cases in Bridgeport, Conn., Englewood,

⁶ Collins, J. E., "The Intelligence of School Children and Paternal Occupation." *J. of Ed. Research*, 1928, 17: 157-69.

⁷ Chapman, J. C., and Wiggins, D. M., "Relation of Family Size to Intelligence of Offspring and Socio-Economic Status of Family." *Ped. Sem.*, 1925, 32: 414-21.

⁸ Lentz, Theodore Jr., "Relation of I.Q. to Size of Family." *J. Ed. Psychol.*, 1927, 18: 486-96.

N. J., New York City and St. Louis. The correlation between size of family and intelligence averaged $-.30$ for the series as a whole, but $-.23$ within twelve more homogeneous community samples. Lentz estimates a drop in average I.Q. of more than four points per generation.

Lorimer and Osborn^{*} further report:

The only groups in the United States which are at present reproducing at rates far above actual replacement needs are located in certain rural areas, and predominantly in communities that are at the lowest economic levels and most remote from those educational and cultural influences which are held typical of social progress in this country. And within the towns and cities, the lower occupational groups, especially those in marginal economic circumstances, and dependent groups, characterized by low ratings as regards cultural-intellectual development, are commonly found to have birth rates somewhat above replacement needs and far above the birth rates characteristic of neighboring groups with superior advantages. At the same time there is hardly a single urban group in which the majority of the young people enjoy the advantages of high school education and in which many continue their education through college, that is now replacing itself from one generation to another.

At the same time increasing complexity and interdependence make even larger demands upon human intelligence to solve social and economic problems. The development of the automatic machine bids fair to decrease the demand in industry for persons of lower grades of mental ability. The design, construction, repair and readjustment of complicated machinery call for a very high degree of intelligence, and are dependent in part upon suitable native equipment.

The apparent increase in nervous and mental disease sets another problem for research and national policy-making. Scientific study of the problem indicates that attention must be given both to the production of more stable constitution in the individual, and to the creation of a social environment

^{*} Lorimer and Osborn, *op. cit.*, p. 199.

which makes for satisfactory adjustment. The first half of this program belongs with the section on human genetics.

A number of the states have made a limited beginning by the introduction of a program of sterilization for certain types of defectives. The consequences, as reported most extensively from California, appear to have been largely good both for the individual and from the viewpoint of social welfare.

Further progress in this important matter depends upon two prior tasks: (1) the extension of research related to human genetics; (2) the interpretation of research to the public.

It should be the function of the Section on Human Genetics:

1. To cause to be assembled for the use of national and other planning agencies the available data concerning trends in birth rate with reference to native abilities.

2. To promote conferences to define the problems which most need research attack at present.

3. To urge upon agencies of government that the investment of funds in research concerning the human stock is at least as worthy as the investment of funds now amounting to millions of dollars annually in the improvement of strains of plants and farm animals.

4. To find ways of introducing through all the channels of public education (the press, radio, moving pictures, libraries, clubs, schools, churches, etc.) full consideration of the problem, the established facts, and any proposed social policies.

V. PROGRAM AND PROJECTS FOR THE SECTION ON CHILDHOOD

1. *Child Health*

A higher infant mortality rate than is found in several other civilized countries calls for special concern on a national scale. After some years of decline, infant mortality remained stationary in 1933 and, judging from preliminary figures from twenty-six states, rose in 1934.

How few children receive essential health services is indicated by the following figures from the White House Conference:

Sampling	Children	Health Examina- tion	Dental Examina- tion	Smallpox Vaccina- tion	Diphtheria Immuni- zation
156 cities	145,720	51%	13%	21%	21%
44 rural districts	37,439	37%	13%	7%	18%
Combined groups . . .	183,159	48%	13%	18%	20%

Health needs in the above matters, and in relation to malnutrition, colds, pulmonary and cardiac disorders, should be studied within each community and state.

Special concern for difference in opportunity between races is suggested by the Missouri State Planning Board report that the death rate from pulmonary tuberculosis was 59 per 100,000 white persons and 223 per 100,000 Negroes. With equivalent health services, in New York, for example, the death rates from tuberculosis approach equality for the two races.

A "Census of Public Health Nursing in the United States, 1931" conducted by the National Organization for Public Health Nursing, Inc., showed for each state the number of counties and the number having nursing service available either for an entire county or for part of it. At that time more than half (53 per cent) of the counties of the United States were without public health nursing service. The data by states are shown in the following table (pp. 20, 21).

The health problem is largely one of better planning. Thousands of hours of time of trained doctors, nurses, and dentists go unused within easy distance of cases in need. In some areas there is a serious shortage of medical and public hygiene services. The South Dakota State Planning Board recommends socialization of medical services. In some way programs must soon be devised which will make full use of available medical experts, which will provide for these workers a good standard of living and which will preserve the attitudes of physicians and patients which are essential to the best health service. Responsibility should be placed by official planning agencies upon county, state and national

**COUNTIES HAVING NURSING SERVICES AVAILABLE TO THE ENTIRE COUNTY, PART
OF THE COUNTY AND WITH NO NURSING SERVICES AVAILABLE BY STATES
(Census of Public Health Nursing, 1931)**

Division and state	Total number of counties in state	Number of counties having nursing service available to		No nursing service
		Entire county	Part of county	
The United States	3,072	1,079	375	1,618
New England:				
Maine	16	10	6	..
New Hampshire	10	..	10	..
Vermont	14	1	10	3
Massachusetts	14	4	8	2
Rhode Island	5	5	..	..
Connecticut	8	..	8	..
Middle Atlantic:				
New York	62	55	6	1
New Jersey	21	18	3	..
Pennsylvania	67	67	..	..
East North Central:				
Ohio	88	75	4	9
Indiana	92	33	18	41
Illinois	102	47	19	36
Michigan	83	32	21	30
Wisconsin	71	37	10	24
West North Central:				
Minnesota	87	35	16	36
Iowa	99	16	37	46
Missouri	114	19	5	90
North Dakota	53	6	7	40
South Dakota	69	5	11	53
Nebraska	93	6	19	68
Kansas	105	20	21	64
South Atlantic:				
Delaware	3	3	..	..
Maryland	23	21	1	1
Virginia	100	45	12	43
West Virginia	55	22	9	24
North Carolina	100	40	8	52
South Carolina	46	25	2	19
Georgia	161	13	10	138
Florida	67	20	5	42
East South Central:				
Kentucky	120	43	9	68
Tennessee	95	37	1	57
Alabama	67	51	1	15
Mississippi	82	24	3	55

COUNTIES HAVING NURSING SERVICES AVAILABLE TO THE ENTIRE COUNTY, PART OF THE COUNTY AND WITH NO NURSING SERVICES AVAILABLE BY STATES

(Continued)

Division and state	Total number of counties in state	Number of counties having nursing service available to		No nursing service
		Entire county	Part of county	
West South Central:				
Arkansas.....	75	31	3	41
Louisiana.....	64	30	2	32
Oklahoma.....	77	7	8	62
Texas.....	254	31	11	212
Mountain:				
Montana.....	56	13	8	35
Idaho.....	44	15	3	26
Wyoming.....	23	..	9	14
Colorado.....	63	8	9	46
New Mexico.....	31	7	4	20
Arizona.....	14	6	5	3
Utah.....	29	8	1	20
Nevada.....	17	..	3	14
Pacific:				
Washington.....	39	26	..	13
Oregon.....	36	21	3	12
California.....	58	41	6	11

medical, nursing, and dental associations to submit proposals to meet the situation.

2. Safety Education

Automobile fatalities, the largest category of serious accidents, now number more each month than the Americans killed during an average month of the World War. Most of the victims are children.

One of the most clearly demonstrated services of education has been rendered in some cities which have laid special stress on training children to adjust to traffic perils. Despite rising automobile registrations and rising adult fatalities, it has been possible to produce a decline in the rate of accidents to children.

Similar figures, analyzed by type of accident, location, etc.,

should make possible a much more effective conservation of child life in every city of the country.

3. Increased Opportunities for the Handicapped

Reference has been made in the introduction to millions of children undernourished, struggling with speech defects or emotional maladjustment, and to hundreds of thousands with sensory defects, other physical disabilities or mental retardation. Few of these children are today receiving optimum aid to development.

Previous surveys have given convincing, although partial, evidence of the extent of the problem. Where data are incomplete, in any state, they should be extended and gaps filled in.

It is important further to seek to discover what is being done and what might well be done to give these handicapped children a chance at personal fulfillment and social contribution. Many of them possess some exceptional abilities; all of them must be considered as potential adult citizens and important human resources. In a few cases, families, schools, public and private institutions are now rendering excellent service in the correction of defects and the development of compensatory achievement for handicaps which are irremediable.

The steps of the project for each type of disability include: (a) Discovery of the extent and effectiveness of present service for these children; (b) selection of the most promising methods of educational approach for each type of handicap; (c) the institution in representative areas of service programs employing the best available methods and carrying forward research looking toward advance in techniques, and (d) follow-up of children served, to permit revision of the training in the light of the subsequent careers.

At present there are not enough workers trained in either diagnosis or treatment to permit extension to every school or even to every community. Service clinics and special classes will have to be established at central points within a state-wide

plan. Each such station should serve as a registration point for a given area, so that it will be possible to know, as we do not know today, the distribution of each type of difficulty by age, sex, race and locality. Advice to parents and teachers as well as simpler forms of remedial treatment should be provided at these guidance centers. In addition each state, perhaps in connection with the state university or teachers colleges, should provide for: (a) Fundamental research upon each problem; (b) the improvement of instruments and techniques for diagnosis; (c) continuous appraisal of treatment methods, and (d) the training of personnel for work with the handicapped.

The major types of handicap for which planning should now be undertaken are:

(a) *Feeble-minded.*—Not all of the mental defective who would profit by training are now in contact with the special schools. Recent investigations indicate that many high grade feeble-minded persons can make good outside of institutions, if they have been given the right kind of training and are under parole guidance. The financial and social saving of this policy is considerable.

(b) *The dull normal.*—This is a much larger group than the mental defectives. These pupils are poorly adapted to the usual school curriculum; they are the main thorn in the flesh of teachers, and furnish a large proportion of all truants. It is very important to discover and to create methods and materials suited to the dull normal mind.

(c) *Children with sensory handicaps.*—Recent investigations in New York City, with more sensitive tests than have previously been employed, revealed that one school child in ten had hearing difficulties. Sometimes the hearing loss was confined to certain areas, so that a child could hear certain tones and noises without difficulty, but was quite deaf to certain other sounds. Occasionally children have been regarded as stupid or obstinate when the real difficulty was that they did not hear.

Visual defects have received much attention in more favored families, but sight-saving surveys indicate that very large numbers of children are not receiving the proper preventive or corrective treatment.

(d) *Children with physical disabilities*.—Included in this category are the lame and also those children with cardiac, pulmonary or other chronic disorders leading to the need for a special regime.

(e) *The emotionally maladjusted*.—This is one of the largest groups, its size depending upon the degree of maladjustment in the definition. No one is free from some aberrations, inner conflicts, and complexes. Some studies indicate that as many as three-fourths of apparently normal and successful adults suffer serious feelings of inferiority and inadequacy. A major cause for this common complaint is doubtless the emphasis in our present social order upon individualistic, competitive achievement. No one can be at the top in all lines. There are always those who surpass him. If attention were directed throughout childhood to cooperative group achievement rather than to competitive personal accomplishment, there might be a marked decrease in many forms of minor and major neurosis.

Emotional maladjustment may arise from many other mistakes in nurture. Too much or too little expression of affection from parents; too much or too little done for the child; distorted emphasis upon functions of nutrition, excretion or sex, or upon guilt or death—these and many other patterns recur frequently in case studies of the maladjusted.

Properly trained psychiatrists, psychologists, psychiatric social workers and visiting teachers can render important service in readjusting personality. The numbers of competent workers are clearly inadequate to serve the needs of the population at present. This is another field which, when measured against human requirements, seems far from over-crowded.

A moot problem concerns the effect of wise psychological guidance in reducing the alarming incidence of insanity. Many case studies show significant improvement in adjustment to reality, but it is hard to know just what the consequences might have been without such service. There are no statistics known to the National Committee for Mental Hygiene demonstrating reduction in nervous and mental disease as a consequence of improved child guidance, but the presumptive evidence is strong. The most striking evidence on reduction of insanity comes from the Soviet Union. They followed indices from other European nations in planning their hospitals for mental disease only to find that they alone among civilized nations had built beyond their actual requirements. The ap-

parently low incidence of mental disease in the Soviet Union is variously attributed to: (1) the need to utilize everyone in some kind of useful work; (2) the prevalence of social and cooperative goals rather than goals for individual competitive distinction; (3) reduction in strains arising from superstition and irrational mores in sex and religion; and (4) differences in diagnostic standards and statistical recording. The evidence should be further examined and the various hypotheses explored. Discovery of methods which will reduce the mounting insanity figures in the United States is of great and urgent importance. There are more beds now occupied in hospitals for mental disease, than are required for all other forms of disease combined.

(f) *Reading disabilities*.—More than a million children in our public elementary schools have had a poor start in reading. They have formed habits which make reading discouragingly difficult. This handicap will interfere with work in the upper grades and in high school, if the pupils persevere so long. The longer these defects go uncorrected the harder it will be to change them and to counteract the ill effects.

Techniques of diagnosis and correction now make it possible to remove most of these handicaps.

Under FERA auspices hundreds of unemployed teachers have been trained to render the time-consuming individual guidance which is necessary to free pupils for success and enjoyment in reading. Objective tests permit a quick determination of the number of pupils in any school who need this service, and also make it possible to demonstrate the improvement which has been brought about.

Appropriate action by governmental agencies should encourage communities to make such service a permanent part of their program.

4. *Nursery Schools and Kindergartens*

Reports from the White House Conference on Child Health and Protection indicated that in 1930 there were fewer than 500 nursery schools in the United States. More than 2,000 were added during 1934 under FERA auspices. The number under other auspices is unknown but has undoubtedly been rising rapidly. Dr. George D. Stoddard⁹ reviewing 840

⁹ Stoddard, George D., "Emergency Nursery Schools on Trial." *Childhood Education*, March, 1935, pp. 259-60.

publications concerning nursery schools concluded that for children from two to five years of age the following advantages of the nursery school might be considered as well established:

1. It offers superior play facilities both as to equipment and child associates.
2. It assists in forming good habits.
3. It simplifies the rendering of health and nurtural services.
4. It offers excellent provisions for social development.
5. It assists in preventing and eliminating behavior maladjustments.
6. It introduces at an appropriate age esthetic stimulations and opportunities.
7. It offers an advancing program which can be made to articulate smoothly with kindergarten and first grade.
8. Its experiences tend to transfer to the home, thus improving family life.
9. It offers an excellent opportunity for the guidance and education of parents.
10. It frees the mother for part of the day, restoring to her leisure time not gained through child neglect.

Among the problems which call for immediate consideration are the following:

(a) What still unutilized opportunities for research into child nature and child guidance are presented by these new institutions?

(b) Can nursery schools which preserve all the essential virtues, be organized within the limited financial resources of communities where the need (due to bad housing, lack of suitable play space, inadequate parental training and the like) is especially great?

In this connection, it might well be important to consider means whereby kindergarten service could be extended to many areas not now being served. Statistics of State School Systems (1931-2) list twenty-four states reporting no pupils from rural areas attending kindergarten.

The National Council of Childhood Education report that only about 11 per cent or one in nine of the children aged 2 to 5 in the United States have any contact with any kind of educational program such as nursery school, kindergarten, day

nursery, children's play groups, or the like. This compares very unfavorably with some European countries which care for 40 to 50 per cent of their children at this age level.

5. Adjustment of Schools to Individual Differences

Studies of school failures indicate that the practice of requiring pupils to repeat grades is wasteful, expensive, and injurious to social adjustment of the individuals concerned.

The alternative is a type of program which allows individuals to work at different rates. The "Workbooks" developed in reading, arithmetic and some other subjects offer one type of adjustment. Activity programs and school projects, permitting division of function within a cooperative undertaking, are even better.

Surveys to indicate the communities in which waste through harmful repetition of grades has been largely eliminated might be encouraged. More important is the making available materials and aids at low cost, so that all communities will find it possible to make better provision for a wide range of ability within each class.

Better adjustment to the individual abilities of gifted children may, in its social consequences, be more important than adjustment to the retarded. A great virtue of programs of individualized mastery is that the able student can work at his own rate. He doesn't form the bad habits of "getting by" without effort or of loafing while slower pupils are getting what he already understands. Socialized activity programs add the further advantage of training able pupils in processes of cooperation and leadership.

It would be desirable, in the interests of conserving human values, to discover in each state:

(a) How far the movement toward breaking the educational lockstep has actually gone in practice;

(b) What modification of classrooms, seating, laboratories, texts and work materials would facilitate further progress in this direction.

6. *School Camps*

Programs of land usage should provide, in the vicinity of each city, for one or more large areas which may be used continuously as a part of the public school system.

There are many types of nature observation and study, many forms of art and craft, and many types of recreation which can best be carried on in the woods.

It should be expected that, throughout the full twelve months of the year, groups of pupils would go to live in the school camp for a week or so at a time.

7. *Moving Pictures and Radio*

In these two great agencies there have arisen educational forces quite as potent as most school activities, but not now under the same social control. Anyone who brought children into a school run for private profit, with a curriculum made up of thrillers, crooners, gunmen and sex appeal, plus the introduction every few minutes of paid advertising for laxatives, patent foods and toilet articles, would find the state authority promptly interfering.

Studies conducted by the Motion Picture Research Council point to serious physical and moral consequences for many children from some types of motion pictures. The average child is much more stirred emotionally by movies than is the average adult. According to these studies 75 per cent of films produced today are objectionable or unsuitable for children. Yet the equivalent of the entire school population attends the movies once each week.

A recent investigation of Children and Radio Programs by Eisenberg (Teachers College, Columbia University) found 43 per cent of children interviewed having dreams attributable to radio programs, and of these dreams three-fourths were nightmares.

On the other hand, there are substantial values to children from both moving pictures and radio programs. Studies of educational value have shown more gain in many types of

knowledge from a well-devised film than could be obtained in the same period of time by lecture or reading.

Thurstone has shown that moving pictures may operate substantially to increase or to diminish race and national prejudice. Other attitudes are, no doubt, subject to similar modification. Eisenberg's study found children listening on the average more than six hours a week to the radio, which is more time than is given to any school subject. Children attributed new songs, new stories, new games and added vocabulary to their radio experience. Twenty per cent had written letters to radio stations or stars. Parents believed radio listening had given the children desirable information and skills in more than half the cases.

There are state and national agencies authorized to license moving pictures and radio stations. Thus far they have not gone much beyond the censorship of crude and obvious immoralities. State censorship is distasteful to producers and to many other thoughtful adults. Influential groups of citizens have undertaken by pressure to oppose certain types of moving pictures. Recently one radio chain announced its intention to eliminate some of the features which have been most criticized.

One function of a national planning board in relation to moving pictures and the radio may well be to see these agencies in constructive relationship to other forces which contribute to human growth. Specifically:

(a) To what extent are communities, each for itself, endeavoring to do in classrooms what could more effectively and less expensively be done by radio or film available to the nation as a whole? Could some duplication and inefficiency be avoided? Can schools make better use of available programs?

(b) Can processes of cooperative planning by agencies concerned primarily with human development lead to the production of films and radio programs which will contribute more positively to meeting childhood needs?

(c) Scientific study of the consequences of present commercial programs should be continued, and the results made available from time to time through agencies of adult education.

8. *Playgrounds and Recreational Leadership*

Many state planning agencies have made commendable surveys of the playground areas available and have set up standards more wholesome than are present practices. In Missouri, for example, metropolitan elementary schools were expected to have sites of at least 5 acres area, of which at least 3 acres should be available for play purposes, but only 26 of 833 met this standard. Only 2 of 75 high schools met the standard of 20-acre sites.

Fully as important as available land is the matter of direction. A trained playground leader can keep children happy despite inadequate surroundings, and experience has shown unsupervised equipment to be a poor investment. The Maine State Planning Board has recognized the importance of professional service in recreation:

There must be whole-hearted support, professional guidance, leadership and trained workers. In no state, where success has been approached, have any of these factors been overlooked. The organization and administration of a recreational program involving social values has become a profession.

One of the great "new industries" which should absorb a large number of persons no longer needed in the production of material goods is recreational leadership. Existing services are grossly inadequate and badly overworked. One or two playground workers are sometimes expected to meet the recreational needs of a neighborhood served by several schools, employing a hundred or more teachers. The fact that we should have more teachers rather than less, only emphasizes further the disparity.

It is desirable, in planning for the development of human resources, to continue the attempt to secure more adequate play space. This is true for the planning of new communities as well as the improvement of long-established residence areas. But increased emphasis must be laid upon the provision of adequate professional leadership. Surveys of recreational facili-

ties in any community or region should include data upon the number of trained workers, the nature of their training, their present duties, and the size of the group each must serve.

VI. PROGRAM AND PROJECTS FOR THE SECTION ON YOUTH

The concern of this section is with some 25 million young people in the United States between puberty and adulthood. They range in age from about 14 to 25. Some 7 million of these youth are in high school, and another million in higher education. Schools are therefore in present contact with only about a third of this age group. An unknown number are at work, but in recent years a growing group are out of school and not able to find jobs. Their pattern of life has been badly upset. The old rule was first school, then job, then marriage and a home of one's own. Youth beyond school, unemployed, and unable to carry the economic responsibilities of marriage, seem to have no place. They do not "belong."

The absence of any adequate plan for American youth is a vital and intolerable deficiency in the present social scene.

One of the first areas to which the National Resources Board, or its successor, should devote attention is the development of comprehensive programs for the reintegration of our youth into American society.

Many agencies, aware of this pressing problem, are offering suggestions. Limited surveys are under way by Federal agencies. The United States Office of Education is collecting data from sixty or more cities, villages and rural areas, concerning a sampling of young people 16 to 24 years of age. Their inquiries cover age, sex, race, mental status, residence, dependents, education, further educational interests, employment, source of support, occupational history, occupational ambitions, free time, leisure activities, and a request for suggestions for improving the community's service to youth. This survey may be extended to additional communities. A program of scholarships for youth 16 to 17 years of age, and of work-study opportunity for youth 18 and over, has recently been prepared by the Children's Bureau.

Some states have undertaken surveys. The Iowa State Planning Board reports that its education committee—

is sponsoring a survey, which is now under way, among these young people (40,000 boys from 14 to 21 not in any educational institution) for the purpose of finding out their educational, economic, vocational and social status.

A field worker is visiting young people between the ages of 16 and 25 in their homes and gathering many personal data on each of them.

This study should indicate some of the needs and the nature of adult education in Iowa. It should also throw some light upon the need for public recreational centers, little theaters, libraries and other cultural facilities.

The CCC camps represent an extensive effort to provide wholesome living conditions and useful employment for half a million youths, although there is some evidence of inadequate attention in this program to educational, cultural, vocational, recreational and social values.

Much more promising and extensive was the Nation-wide Community Youth Program sponsored by the United States Office of Education as a part of the Works Program. This plan called for aid to 2,000,000 young people living in their own home communities. A combined program of work, recreation and education was contemplated, to occupy 42 hours a week. Young people of both sexes would have been paid up to \$20 per month while participating. The work outlined involved apprenticeship in public, non-profit enterprises such as schools, libraries, hospitals, museums, social welfare institutions, public health programs, youth activities, etc.

The improvement of opportunities for youth now in secondary schools has been one aim of a project inaugurated by the Committee of the Progressive Education Association on the Relation Between Schools and Colleges. With the aid of grants from some foundations an eight-year program is now going forward in thirty selected public and private high schools. These schools will be freed from some of the restraints exercised by the college entrance examinations, and

will be encouraged to work out new curricula, new methods and new tests of achievement.

Most closely and clearly parallel to the work proposed for the Section on Youth of the National Resources Board (or its successor) is the activity started by the American Council on Education. They have received a grant of half a million dollars, with more to be added as projects develop, to be expended under the direction of a:

Commission of outstanding citizens which will undertake an extended inquiry into, and formulate comprehensive plans for the care and education of American youth. This Commission should endeavor to integrate contributions that have been made or are being made for the solution of this problem, to stimulate new contributions in fields hitherto unexplored, and to encourage translation of the best that is known into practice on a nation-wide scale.

The work of the proposed Commission should be comprehensive in scope. It should take account of the needs of all young people, whether they are reached by existing social agencies or not, who are approximately 12 years of age and upward. The problems to be dealt with in the care and education of youth suggest the desirability of a fourfold undertaking:

- (1) A comprehensive analysis of the characteristics of youth, and an evaluation of the influences to which they are subject;

- (2) The continuous study of commonly accepted goals in the care and education of American youth, for the purpose of determining the adequacy of these goals in relation to present social, economic, and political trends;

- (3) The investigation of agencies concerned with care and education, and the eventual recommendation of procedures which seem to influence young people most effectively; and

- (4) The systematic popularization and promotion of desirable plans of action through conferences, publications and demonstrations of promising procedures.

The major responsibility of the Section on Youth must be to study the social scene as a whole, to take note of trends and deficiencies, and to plan for better opportunities for all young people.

The basic concept upon which planning for the welfare of youth must proceed is that of transition from childhood to worthy adult living. This is not a neglect of the right of youth to live each year and month and day for its own sake, on the basis of maximum satisfaction. The two go together. Days of youth, like days of childhood and adult living, are ends in themselves, to be lived as fully and richly as possible. But the differentiating factor for youth is that days are more satisfying if they mark progress from the activities and outlook of the child toward the functions, responsibilities and understanding of the successful adult. Educational and social services are good for youth only in so far as they facilitate the transition from childish ways of caring for health, getting food and clothing, using free time, enjoying citizenship and carrying on social relations, toward mature ways of functioning.

The following projects may aid the Section on Youth in carrying out its task of coordination and foresight.

1. Standards and Objectives

Standards and objectives arise, not by arbitrary fiat, but out of the life of a society. In some cultures young people need to learn to drive an automobile safely, in others they must learn to paddle a canoe and spear fish. Some forms of government call for unquestioning allegiance; a democracy demands citizens free and able to think for themselves.

Most of the goals set for American youth have been stated in such vague and general terms that it is hard for an individual to test himself to see whether he is or is not adequate. It is hard for institutions to plan or to test their work unless general functions can be broken into much more specific and demonstrable achievement. A series of committees is recommended, many of them involving Federal agencies already active in related fields (Children's Bureau, Bureau of Home Economics, Public Health Service, Bureau of Standards, 4-H Clubs, etc.). Data should be collected concerning what it

means for young men and for young women to function well in given types of community today, in such matters as:

- Keeping well
- Choosing a vocation
- Earning a living
- Founding a home
- Purchasing goods and services
- Providing security for emergencies and age
- Participating in wisely chosen recreation
- Carrying on avocational activities
- Bringing up children
- Voting and performing other duties of citizenship
- Understanding and enjoying the natural environment
- Understanding and enjoying the artistic and cultural environment
- Finding needed information in books
- Solving personal problems with wholesome emotional balance
- Working out a satisfying philosophy of life.

It is true, of course, that many differences in taste and outlook are to be expected. It is not the aim of this project to provide any kind of uniformity. The committee may find, however, in every one of the above lines of living some facts which modern youth must take into account.

For example, to know that one should "use money wisely" is not much help. To prescribe exactly how each youth should use money would be unbearable regimentation. Between these two extremes, it is the object of this study to describe in much more detail what is involved in the wise use of money. What are the facts concerning slot-machines? What are the standards for judging a "bargain" in the purchase of shoes? A youth might well be expected to know how to manage a checking account, how to budget in order to purchase something desired at a later time, and how to avoid some of the obvious pitfalls into which unwary investors fall.

The product of the work of this committee might well be a handbook, continuously revised, against which youths could check themselves and schools and clubs could check their programs, to see whether some essentials had been omitted.

2. Inventory of Agencies Serving Youth

It is desirable to know the agencies now working with youth on a national scale and the portions of the total youth reached by each agency. An early project in this section's work should be to assemble data from every organization, public and private, carrying on a youth program which extends beyond the confines of any one state. This will include schools and colleges, farm organizations, Y.M.C.A., Y.W.C.A., Y.M.H.A., Y.W.H.A., Boy Scouts, Girl Scouts, Campfire Girls, agencies represented in the international Council of Religious Education, and many more. Each organization should be asked to furnish data on the number of youth hours occupied at each age level, in each type of community, etc. It should be thus possible to map out, sociologically: (1) the sections of youth population who are over supplied with organizations; (2) those who are untouched; and (3) those who fall between. It will be possible to estimate more clearly the types of youth need which are being well met and those now largely neglected. The use of definite standards developed in the preceding project may prove helpful in improving the programs of existing agencies and in showing the task to be met by new ones.

Data from surveys of youth such as that now in process by the Office of Education will serve to check from the "consumer" side the extent and nature of agency contacts.

It is anticipated that the project will reveal the location by age, sex, type of city, previous history, etc., of millions of young people not now being served to any extent by agencies of youth development.

3. Vocational Adjustment

Looming above all other problems of youth today is that of finding the right job.

(a) *Occupational information.*—The first essential for sound vocational guidance is still missing. This is dependable information on occupational trends. Data should be con-

tinuously available in every community, state region and for the country as a whole. The National Resources Board should bring into immediate cooperation the various Federal agencies (United States Employment Service, Division of Vocational Education of the U. S. Office of Education, Civil Service, Personnel Board, etc.) properly concerned with the matter. Together a practicable procedure should be evolved, tested out in a few communities, and adapted to national use.

Many of the State Planning Boards agree with the demand of the Michigan board for:

a study of the whole field of changing occupational opportunities, employment, and unemployment.

The Preliminary Report of the Maryland State Planning Board goes into more detail:

. . . A sound plan for the program that is to follow emergency relief must include a study of the employment possibilities of the several counties and cities of the state, of the occupational training and history of the unemployed group and of the possibilities of retraining for new jobs which they may expect to find open to them.

Together with this program, the objective of which would be placement in private industry, there is need for a study of the possibilities of employment in public occupations for the group who will otherwise remain public charges after the depression. This should include a study of employment in other fields than public works or construction. Employment by the government rather than private employment may be expected to furnish a more available field for experimentation with re-employment of the group who, if left to themselves, will remain public charges.

Community needs which are unmet because of lack of appropriation for workers or lack of acceptance of the service as a community responsibility must be considered.

If government is to spend public funds for the support of those who are not acceptable in private industry under our present economic system it will be sound planning to consider the possibility of using this group in raising the standards of community life by public enterprises and activities. To the economic value of such a system should be added the social

value of maintaining the group as self-supporting and not relegating them to the economic scrap heap.

Analysis of the unemployed, under-employed, and part-time employed, which would reveal data as to their occupations, work habits and as to whether they constitute social or economic problems which will not be solved by a rise in private employment is an essential preliminary step to the planning for a permanent social welfare program. (Page 83.)

The New York State Planning Board reported (Bulletin 19) some figures on broad trends over a long period. Thus while numbers of persons in all occupations together increased 40 per cent from 1910 to 1930:

Insurance salesmen increased.....	149%
Bankers and brokers increased.....	141%
Clerical occupations increased.....	138%
State and municipal employees increased.....	104%
Professions increased.....	97%
<hr/>	
Manufacturing and merchandising increased.....	19%
Agriculture and allied occupations <i>decreased</i>	28%

The cities of New York, Chicago, Philadelphia, Boston, Detroit, Cleveland, Baltimore, Pittsburgh, San Francisco, Minneapolis, New Orleans, Seattle, Cincinnati, Providence, Bridgeport and Pontiac have made occupational studies in greater or less detail, but few of these show the trend lines.

Reports must be made month by month on a comparable basis concerning the entire country, because the mobility of our population is increasing, and the youth of any city need to know what is happening in an occupation generally, as well as in their own town. New occupations and occupations suited to rural living may well receive special attention.

The available number of employed and unemployed persons in each line of work should next be compared with the present and probable future number of openings.

Such data must then be made available to the youth of the country through: guidance counselors, weekly occupational summaries released to the press, radio reports, and other channels. Short monographs containing essential information

for each of hundreds of occupations should be available, on a basis comparable to Department of Agriculture Bulletins, to individual citizens, to schools, clubs, camps, libraries, and other agencies.

(b) *Occupational aptitudes*.—Existing tests have only a limited value in enabling individuals to discover their own best capacities. The National Occupational Conference has proposed to the Federal Emergency Relief Administration that \$860,000 be allotted in units of \$10,000 each to study existing data, largely from test records, with a view to improving existing measures and devising new ones. Whether these various studies are made or not, there is need for a conference or committee of competent technicians to lay out the general strategy of research related to vocational capacities. In this, as in many scientific fields, new fruitful ideas are the product of a few exceptional individuals, but the provision of funds to support their investigations is a matter of primary importance and of national interest.

A special problem in this connection concerns the age at which specialization should begin. Most people are equipped with many abilities, differing only slightly in potential significance. The person with one outstanding talent, mediocre in all other lines, is so rare as to be a psychological curiosity. Early selection of some one form of work, with specialized training for it, means the neglect of many other abilities which might have been nurtured. It would seem wise, in view of the many occupational readjustments which may be required, to build a fairly broad range of accomplishments before selecting any for intensive training looking toward a career. Research is needed to give guidance to youth and to teachers on the relative value of early and of late specialization. Occupational and educational histories of persons of like ability, following different methods of training for the same eventual profession, ought to give considerable light on this problem.

The Federal agencies concerned with personnel problems—the Civil Service, the C.C.C. camps, the T.V.A. personnel,

etc.—should be expanded to include sufficient fundamental research to increase our knowledge of the vocational capacities which the government itself now needs for its work.

(c) *Vocational education*.—The majority of openings will be found in those occupations which require a high degree of training. In the midst of extensive unemployment there have been press reports of shortages of dietitians, highly skilled machine designers, and other select groups. The automatic machine may be expected to replace more and more the routine repetitive worker, providing the goods to support new forms of service. Most of the services will require semi-professional or professional training.

It is in the interests of the people as a whole to train everyone to function at his highest level of competence. Society suffers whenever a man who might be a research worker, an artist, a physician, or a teacher, engages in merely routine work. This is especially true under modern conditions which replace lower grades of labor by machines. As many persons as possible must be pushed “up” into occupations requiring special training.

The one way to encourage everyone to secure all the training which his ability warrants is to provide ample opportunity. It is known that there are many youths with high qualifications who feel forced by financial limitations to abandon their plans for further education.

A system of education, vocational or cultural, is not wholly “free” until its advantages are offered to all, regardless of family economic circumstances. This may mean that it would be in the best interests of our economy in the long run to establish scholarships or to permit capable students to work and earn while they learn. The Report of Consultants of the State Planning Board of Indiana (February 22, 1935, p. 12) announces their acceptance of this principle as follows:

Vocational and professional training should be within the reach of everyone and the State Planning Board should encourage the establishment of such opportunities.

Planning for the vocational education of youth raises further questions as to how the training shall be integrated with the existing occupations. At one time nearly all boys and girls learned their work by assisting their elders. Then the pendulum swung so far toward schooling that often pupils were taught under unreal and unfavorable conditions of the classroom, skills which might better have been learned on the job. This process led naturally to a criticism of school learning as "too theoretical," and to a loss of respect for the school-trained worker. The present movement is toward restoring many of the values of apprenticeship and internship without sacrificing the additional advantages of a well arranged educational program. Experiments in Carmel, N. Y., and Hattiesburg, Miss., have provided for the induction of youth into shared participation in the daily work of their community. A cooperative study—by representatives of labor and of education—of all such programs would be an immediately helpful enterprise.

Forms of organization differ also. Four types of vocational education program may be mentioned:

- (a) As a department in a comprehensive high school.
- (b) In a separate building under its own administrative organization.
- (c) In a separate unit trade school, each limited to a group of related trades, such as printing trades, electrical trades, metal trades, etc.
- (d) As a part-time school under an indentured form of apprenticeship.

School administrators often find themselves confronted with local operating conditions such as limited finances, and limitations as to buildings, equipment, or other operating conditions which prevent adoption of the most efficient type of organization. Their problem then is one of utilizing the next most efficient type. The problem is bound to be one of extreme administrative difficulty under all conditions, and it is one of fundamental importance in vocational education.

The answer to this question will not be found in a brief survey of any institution or group of institutions. It will be necessary to set up a number of controlled experiments or laboratories under the observation of a competent survey committee, and to note carefully the results over a long period of years.

(d) *Opportunities for negro youth.*—Difficulties arising from technological advance, agricultural disorganization, population movements and the general economic breakdown are all accentuated in the case of Negroes by racial factors. Partly because of the lack of adequate opportunity for education the Negroes have been particularly handicapped in readjustment.

The National Conference on the Position of the Negro in the Economic Crisis, held at Howard University on May 21, 1935, reported the following estimates:

<i>Industry</i>	<i>Number</i>		<i>Per Cent</i>
	<i>Available</i>	<i>Employed</i>	<i>Unemployed</i>
Manufacturing	609,000	236,000	61
Mining	77,000	16,000	78
Construction	245,000	143,000	42
Trade	246,000	51,000	79
Others (excepting agriculture)....	793,000	119,000	85

The unemployed were estimated as 36 out of every 100 employable. As the American Federation of Labor estimate of total unemployed males, including Negroes, was 28 out of every 100, the conference concluded Negro unemployment at the end of 1934 was at least 29 per cent higher than general unemployment. The condition was attributed to fewer employers and self-employed among Negroes than among Whites, a lesser representation of colored males in the professions and public service and the large number of low paid unskilled laborers who were most severely affected by unemployment, as well as by racial discrimination.

In contrast, the January, 1935, number of the *Journal of Negro Education* indicates that professional opportunities in serving their own race still offer a large field:

There are less than 4,000 Negro physicians for a Negro population of over 12,000,000. Negro teachers with higher degrees are needed and being used in the elementary and high schools. There is a need for 3,905 college trained preachers to fill and replace the pulpits of the various denominations in our group. Business is an almost virgin field with the possible exception of insurance, undertaking, transfer and hair preparations. In agriculture, the future demands will be for scientific farmers, demonstration agents and directors of cooperative farming ventures.

According to the 1930 census, there were 1,038 social workers or one to every 11,456 Negroes. There are only 1,230 lawyers in our group. In the South, about 100 lawyers care for the potential needs of 9,000,000 Negroes, or one lawyer for every 90,000 Negroes. Engineering and architecture have approximately 100 students and fewer yet out in actual work. Library work is an expanding field in which few Negroes are engaged.

Nursing, mental hygiene, chemistry, social and scientific research, recreational activities, public health, government, child welfare and guidance, occupational therapy and some new occupations, are discussed in this issue of the *Journal of Negro Education*.

A committee of the National Planning Board in cooperation with officials from the United States Office of Education and from the Department of Labor might well make a thorough-going study of the facilities available for Negro education in the light of social and economic changes now taking place.

4. Recreation*

While we are far from producing all of the goods and services which our consumers desire, yet increasing mastery over the development of physical resources allows us to devote a large share of attention in the future to the development of constructive human potentialities outside of

*Planning to meet recreational needs may well be done for youth and adults jointly. The possibilities are discussed in this report in connection with the Youth Section because recreation plays a more prominent role in the life of youth.

those required for the production of economic goods. The height attained by a civilization is better indicated by its recreation than by its economic processes.

The trend toward shorter hours of work, with more time available for leisure, has often been documented. In the early days of the nineteenth century men worked in factories from dawn until dark. By 1840 the work week had been cut to 72 hours. In 1870 the week averaged 63 hours. In 1890 the figure had dropped to 58 hours. In 1910 the figure was 55 hours; in 1920, 50 hours. The American Federation of Labor estimated that business in January, 1931, as then organized, could offer the wage earners of the country only an average of about 36 hours a week. More than half a million organized workers are now on a 30-hour week. The codes of the N.R.A. during their period of operation added an average of 6 hours of leisure a week for $6\frac{1}{2}$ million workers engaged in manufacturing (U. S. Bureau of Labor Statistics).

Parallel to shorter hours has come increased participation in recreation and culture. Attendance at night schools doubled in the decade 1920-1930. Publication of books and pamphlets nearly doubled in the same period. Enormous increases took place in the use of automobiles for pleasure, in the production of radio sets, and in the moving picture industry. The general drop in our national income during the past five years has reduced the possibility of expenditures, but has not altered the general trend toward more leisure time.

There has been so much concern on the part of educational, social welfare and recreational agencies over the new leisure that it may be well at the outset to voice two important reservations. One is that if and when the purchasing power of the people becomes commensurate with our productive capacity, there will be work enough to keep everyone busy all the time. We are surely far from satisfying all the desires of our citizens. If every able worker were employed 70 hours a week we should not produce more food, clothes, houses, conveniences, luxuries, and services than could be consumed. Millions would still want more. In other words, at some

point we shall have to choose whether we shall raise the output of goods and services by extra hours of work, or whether we shall have more time free for recreation.

The second question concerns the artificial and, in the history of mankind, relatively recent, separation between labor and leisure. We have made work too barren and leisure time pursuits too trivial. The antithesis between work and play is essentially false to human nature:

When we observe children we realize more clearly that the distinction between work and play lies not in the amount of exertion nor in the difficulty of the effort, nor in the character of the outcome.¹⁰

In primitive societies building a canoe, hunting game, carrying on a tribal ceremonial, involved a happy blend of the values of work and play. In early American society similar integrations were apparent in maple-sugar production, quilting bees, corn husking bees, barn raising, and the like. One important task for community recreation, should be to try to find the Twentieth Century equivalent of those events that combined a sense of important achievement and the fun of a social occasion.

(a) *Land use.*—Plans have been made in many states for the extensive conversion of land to recreational uses. The area devoted to municipal parks should, according to recommendations, be greatly increased to reach a standard of 1 acre for recreation to each 100 persons. State and county park systems are estimated as needing to be enlarged from 3,800,000 acres to 10,000,000 acres. Much of the increase can well come from sub-marginal areas, but the Wisconsin Regional Planning Board recognizes the important principle that —

in certain respects "recreation" is the "highest" land use we have.

They very properly recommend that some of the best farm

¹⁰ Gruenberg, Benjamin C., "Work and Leisure; A Changing Outlook." *Child Study*, March, 1935.

1. It is shown in all the cases surveyed that the fundamental step in development of more adequate social and leisure-time activities should be the creation or rejuvenation of a community council. This group would function as a planning agency for the local community in arranging the calendar of events, scheduling programs, and developing organizations. The council and the various community organizations would cooperate in carrying out their respective programs. Community councils should perhaps be integrated into a county-wide or state-wide organization in order that cooperation and inter-stimulation between the serious groups would be possible.

2. An experimental program, under Planning Board auspices, should be undertaken in a single representative county in order to develop techniques and to create a tangible Iowa example of the possibilities and advantages in a social and leisure-time program.

3. Provision for community center buildings should be made, these buildings to serve as meeting places, recreation centers, libraries, reading rooms, educational and social centers, etc.

4. Specific plans and recommendations for each of the individual communities surveyed have been made, and have been, or are to be made available to the communities and to other interested persons or groups.

New York State recognizes a special problem in compensating for the defects of its great urban centers.

When less than 20 per cent of the people live outside of the seven metropolitan areas and when only 6 per cent of the people live on farms, it is quite essential that new large areas of common land be provided for out-door recreational use. These millions of people need opportunities for hunting, for fishing, for camping, for hiking and for vacation and leisure-time relaxation, contemplation, play and enjoyment.

In Maryland the Preliminary Report (August, 1934) refers to provision of vacation camps for city workers.

The Federal authorities have in mind the development of areas of about 2,000 acres to be used as vacation centers by low paid industrial workers. It is thought that simple type houses will be constructed where the workers can take their families for two weeks to a month during the summer. It is

thought further that some social or relief agency will have to select those who will use the areas and arrange for organized transportation. The 2,000-acre area ought to be suitable for children's playgrounds, ought to convey the feeling of isolation, and ought to provide suitable bathing facilities for 200 families. Fortunately nearly all of Maryland is within one-half day's travel distance from Baltimore.

Kansas points out that camping is not merely a recreation of the urban worker.

The fact that Kansas is an agricultural state, in no way lessens the need for state parks. The impression that state parks are solely or primarily for the city dweller and the industrial worker is not correct. There is perhaps no social group that is more interested in camping, fishing and swimming than the rural element. They usually cannot neglect their farm duties long enough to travel great distances and this emphasizes the necessity for a proper distribution of parks.

Maine has recognized camping as so important a feature of state life that the Planning Board recommends forming an association of camp directors, appointing a state counselor to aid camps, offering special licenses, arranging a series of competitive baseball contests (a suggestion which may need reconsideration in the light of the highest camp values) and celebrating annually a special day to be known as Juvenile Camp Day. Canoe trips, mountain trails, and ski trails have been laid out in Maine and in New Hampshire. Plans for winter sports are receiving increased attention. Undoubtedly the trend will be toward all-year use of recreational facilities.

Certain phases of the recreation problem have not yet been included in the planning processes.

(b) *Use of school facilities and program.*—Many schools are making a valuable contribution in their provision for art, crafts, dramatics, music, enjoyment of nature, literary appreciation and other forms of social and physical recreation. There has been in many communities an attempt to cut down such services, reducing the educational program to certain relatively barren techniques. It should be pointed out that

this is a time to extend, not to reduce such services. Recreational activities are rooted deeply in human needs. These are by no means recent innovations in human culture. In some of the best forms of education in the past—that of Athens for example—as well as in the most primitive tribes, we find music, art, crafts, dancing, dramatics and physical contests in a central place. They have been cherished throughout human history. In this period of increasing freedom from laborious toil, the school's modest provision should be increased to serve not only the children but the youth and adults of the community.

(c) *Use of professional artist.*—Another problem in planning for recreation concerns the use of artists and performers. A survey in New York City discovered 30,000 musicians and a large number of artists whose talents were not being used for society. Loans from the Federal Government have been requested to finance traveling companies of actors producing popular plays. Under relief auspices many concerts, plays and other entertainments have been arranged. Thousands of citizens had their first opportunity to attend the theater as a result of these performances. Widespread approval suggests the value of the incorporation of such recreational service as a permanent aspect of community life. City and national playhouses and concert halls have been developed extensively in several European countries. Principles of successful establishment and operation should be formulated as a result of studies by national planning agencies.

(d) *Active participation.*—A common criticism of much of our recreation today concerns its sedentary nature. Commercial recreation invites us to come, pay, sit, and be amused. Active creative play has been relatively neglected. Results have been bad, physically, as shown by the increase in certain types of disease related to sedentary living. It is more difficult to show the mental and social consequences of the lessened initiative and the absence of any demand for creative, cooperative effort. There are evidences of increasing interest in active recreation. Tennis courts, golf courses and swim-

ming pools are being provided in increasing numbers but are far from meeting the demand. A recent review¹¹ of the Little Theatre movement lists 1,020 groups.

The Oregon (Six Months Progress Report, January, 1935) Planning Board stated their objective in cogent and comprehensive form:

That technical knowledge and organizing skill be employed with zeal to establish a state-wide system of social, art and handicraft recreation based on self-participation instead of passive reception of entertainment.

National state and local agencies should, in their surveys and plans, increase the provision for self-directed group and individual leisure-time activities.

(e) *Clubs*.—Clubs are among the best agencies for encouraging, developing and demonstrating the capacity of youth to work together for social ends. National agencies have been particularly successful, as the survey proposed under (1) above will show in more detail, in organizing younger adolescents (Boy Scout age) rather than older, and the privileged sections of communities rather than the most needy. The strength of fraternities and occasional community clubs among older youths indicates that the impulse to club activities does not die out. There is every evidence in gang life that underprivileged communities also want club association. The provision of organizations of, by, and for youth, each with a live program suited to the needs of its own personnel and community, is an important social goal. In many ways it is more important than the provision of work-camps or the extension of traditional school opportunities, both of which have been undertaken with state and national aid.

(f) *Travel*.—A favorite form of activity, combining recreational and educational values, is travel. Youth in large numbers have taken to the road. Some thumb their way along the auto trails; others clamber into freight cars. As a relief

¹¹Perry, Clarence A., *The Work of the Little Theatres*. New York, Russell Sage Foundation, 1935.

measure some camps have been established for these transients. It is appropriate to raise a question concerning permanent provisions for youth-travel. The New Hampshire State Planning Commission recommends a—

study of the possibilities and opportunities for the development of a system of youth hostels, whereby the young folk may find attractive and comfortable vacation places, with reasonable prices, located on easily accessible trails.

A Youth Hostel Association is seeking to secure opportunity to use college dormitories during vacation periods for youth hiking, driving or bicycling across the country. Parallel to country camps for city youth ought there not to be urban centers where clubs of rural young people can come for a few days or a few weeks to get some first hand contact with city life?

Schools have only begun to utilize the changes in methods of teaching history and geography which are made possible with modern methods of transportation and demonstration. In addition to preserving historic spots as public parks, it is important to build up facilities which will make a visit by youth groups as rewarding as possible. This means museums of the "active" type which call for participation, not merely passive observation.

It involves also adequate camping facilities because such tours should be made available to the large sections of the population with low incomes. The time may come when every adolescent will include as an important part of his development, satisfaction of the age-old desire to "see the world."

When proper facilities have been arranged, a year of travel about the country might prove no more expensive and much more rewarding to the average American boy or girl than a year of college.

Some of the colleges are recognizing the value of six months or a year of study abroad, living in some foreign culture. This can be one of the highest forms of contribution to human development. It offers opportunity not only to learn another language well, to acquire some feeling for the customs of another land, but also gives perspective in the

life of one's own country and on world affairs. Long term living abroad, under broadly educational guidance, is a combination of recreation, instruction, and reconstruction of personal and social values which could well be made a part of the education of most American youth.

Provision of suitable travel opportunities should be considered as one of the possible "new industries" to employ thousands or even millions of additional workers. If all traveled as much as those who have incomes of \$5,000 and over now do, the demand for workers would far exceed the total number of unemployed.

5. Constructive Citizenship

A most important move toward better citizenship is the encouragement of cooperative participation in civic affairs. More than anything else, youth needs opportunity to work for a great cause or social goal. Fully and strenuously to be occupied in cooperation with one's fellows, achieving something of great importance—this is salvation. In other ages and other countries crusades and revolutions have found their highest spiritual significance in giving youth something beyond themselves to live for and, if need be, to die for. Any student of American youth today, whether his attention be on the colleges, the farms, the factories, or the unemployed, must be struck with the absence of any dominant dedication. Middle age may tolerate a life in which every tomorrow is much like today, but the morale of youth demands that one lose his life in some great undertaking. Many older hearts would quicken in response if there were to emerge in the United States any determined cooperative effort on the part of youth to realize in their community, state or nation the historical ideals of our culture. At present there is little evidence of any such movement, and little knowledge of the requisite conditions for its development. A committee of the national planning agency might well concern itself with finding out more about the rise of such youth movements abroad, the budding youth enterprises in this country, and the circum-

stances favorable to the growth of a more significant social movement among our young people.

Immediately some steps can and should be taken to enlist youth in community improvement. The several youth programs of the Children's Bureau and of the Office of Education both provide that young people shall assist in schools, parks, hospitals, community recreation and welfare agencies. Whether such a relief program is operated on a national scale or not, local communities should provide internships, assisting public officials, as a permanent policy.

Schools are tending to break down the walls which have separated "learning about" from "doing." In the "Planned Program of Public Education for Pennsylvania," A. W. Castle stresses the idea that this next decade will be characterized by increasing socialization of the content and method of teaching.

More and more they (schools) will tend to draw from immediate environment the subject-matter of course content . . . developing in individuals qualities which will equip them for successful participation in community life. (Page 597.)

The projects which receive most appreciative attention in education today, are those in which young people undertake and carry through a program for community service, such as: the elimination of typhoid fever in their locality, the provision of a playground in a needy area, the improvement of quality of motion pictures, or the arousing of the community against forces leading toward war or toward Fascism. State agencies concerned with the curriculum and with supervision should be encouraged to provide increased opportunities and recognition for those teachers who are ready to lead their young people into the active living in modern society.

There is a special opportunity to increase youth participation in the very processes of planning with which this Board is directly concerned. It is a safe venture that few, if any, of the members of national, regional, state, or local boards are under twenty-five years of age. If it is not feasible to give youth full membership upon such planning agencies, then

associate planning boards might well be set up alongside the official bodies. These associate groups, composed of selected young people, might be expected to take an important share in studying broad questions of policy for their towns and their states. Their recommendations should always be considered, and upon some matters should be given special weight. It must be remembered that within some limits, the more persons who can be drawn into the processes of planning in a democracy, the better the results will be. Most citizens prefer to have a share rather than to have a few wise persons do things for them. Further it should be borne in mind that these young people are going to live in and administer the social situations which results from present planning.

6. Schools

(a) *Developing appreciation of new objectives.*—A third of all American young people are in school and the proportion is growing rapidly. The improvement of the school program to meet the needs of this new population is long overdue. The curricula of secondary schools and colleges retain in unduly large measure the items that were appropriate a century ago, when higher education was provided for only a very few. Studies like those of the American Council on Education and the Progressive Education Association represent encouraging efforts at self-improvement from within the educational profession. Such efforts must be supported, however, by a large body of enlightened public opinion. As long as parents think of schools in terms of Latin, Algebra and Ancient History, it will be hard to build institutions primarily concerned with such objectives as health, personality adjustment, recreational interests, and effective citizenship. One function of planning agencies is to help build community support for a new concept of the school and its proper service.

(b) *Extending opportunity to go to school.*—Not all pupils who could profit by more advanced school training are now provided with this opportunity. In urban areas (1931-2) one school child in four was attending high school, while in rural

areas only one in seven of the school population was in high school. The difference is a product primarily of difference in opportunity rather than difference in native ability or even in interest.

Financial handicap now prevents millions of students, above the average of their high school class in ability, from enjoying the benefits of a college education. The Federal Emergency Relief Administration has provided 12 per cent of the enrolled college students with opportunity to earn \$15.00 a month by socially useful work. Reports like those from the University of Minnesota, for example, show that three-quarters of the students have done work of high quality on a great array of useful enterprises. From the standpoint of permanent policy a number of improvements on the F. E. R. A. program should be considered:

1. Should not the work program be more integrated with the study program so that each may enrich the other? The experience of alternating work and study in certain institutions with a "cooperative" program has shown many difficulties but some promise of success in bringing the two phases of the students' work together.

2. Should not effort be made to locate, during the last year of high school, all students of exceptional promise who could not otherwise go on to college? It is not implied that aid should be given only to those of high scholarship. Other young people can also profit by college training. As has been pointed out earlier in this report, present vocational trends justify extensive effort toward securing for large numbers of young people training in the various services. But human welfare is particularly affected by the contributions of the few outstanding scholars, scientists, artists and statesmen.

In this connection, studies by certain professional societies might be helpful. Each should be encouraged to select a few persons who have rendered outstanding service in the particular field—be it some phase of scientific research, educational leadership, artistic creation, engineering construction, or political leadership. These persons should then be studied, in comparison with suitable control groups from the same profession, to see what factors can be discovered in childhood

and youth records which would bring about improvement in our prediction of exceptional social usefulness.

In the light of our available knowledge of probable future success, it would seem to be good social policy to make sure that all those of exceptional promise are given advantages of higher education, then to add as many more as the national income and the prospective demand for college-trained persons would justify.

3. Should not the funds be made available on an annual basis so that students may work intensively and at some distance from the college during vacation periods?

4. Should these steps be looked upon as part of a program leading eventually to a genuinely free education, with board, room, lodging, books, equipment, fees, etc., all provided for any competent students? Or would it be psychologically and educationally more wholesome to arrange a combination of work for self support, and education up to the highest levels? The United States seems to possess the economic resources, the technological and occupational trends, and the cultural ideals which would justify some such policy.

VII. PROGRAM AND PROJECTS FOR THE SECTION ON ADULT LIFE

The prominence of adult education at present is a consequence of two very fundamental trends, both of which are likely to continue. One is the changing age distribution in the population, the other the accelerating rate of change in the culture.

The advancing age distribution is a product of declining birth and death rates. Striking changes in age distribution of the population of the United States are shown in the following table:

<i>Year</i>	<i>Per cent under 15 years of age</i>	<i>Per cent 45 years of age and over</i>
1880	38%	16%
1890	35	16
1900	34	17
1910	32	18
1920	32	21
1930	30	21

Thompson and Whelpton's "low" estimate projecting present trend lines would suggest that in fifty years about half the population will be over forty years of age and only a quarter (as contrasted with over 40 per cent at present) under twenty.

The rapid and ever more rapid changes flowing from science, invention, and their effects upon human relations, have created an intolerable gap between the learning of youth and the needs of adult life. The "social lag" is due in some measure to the fact that children have been supposed to learn in school enough to last them for the rest of their days. Then events moved on and left these adults with knowledge, attitudes and habits more or less appropriate to a generation past. Only continuous education and re-education of adults can help them to keep abreast of the discoveries and duties of their day. Thorndike wisely pointed out that if some persons are to be required to go to school it might profit society more to enforce compulsory education upon persons over forty than to keep all children in school. Adults are engaged in carrying on the major enterprises of our economic, cultural and political life. They need constant and up-to-date aid in these responsibilities.

1. *Economic and Social Problems*

(a) *The need.*—The fact that our materials, machines and man-power are not being used to produce more than a fraction of the goods and services of which they are capable, points to one of the greatest and most difficult responsibilities of adult education. If people are undernourished it is due to no deficiency in the science and art of plant and animal breeding, but to the absence of the social insight which will allow us to make full use of what applied science can produce. Better clothing for our population does not wait upon the discovery of new substitutes for cotton, wool or hides. Better homes for America are not delayed by the lack of desire to live in more modern and comfortable surroundings, nor by

any lack of facilities and advertising on the part of the producers of building material. Every state department of health, education or welfare, can suggest a multitude of beneficial and often sorely needed improvements which are impossible at present because of the inadequacy of our economic arrangements. Provision of support for the many services recommended in this report depends upon economic reorganization which is, broadly, an educational problem. If important changes are to be made within a democracy, the citizens must first think through the problem.

It is clear that educational efforts have thus far not been sufficiently extensive and thorough. Year after year the paradox of poverty in potential plenty lingers. Government activity cannot, of course, be directed toward the promulgation of a particular viewpoint on controversial issues, but government may properly provide arrangements whereby citizens may be encouraged to do more and better thinking on problems of national concern. How a government may best act to aid its citizens in defining issues, getting at the essential facts, reaching and expressing their conclusions, is still to be discovered. Experiments of the Agricultural Adjustment Administration in organizing discussion among the farmers of the country offer the most extensive source of experience at present. An important responsibility of the Section on Adult Life will be to appraise and to extend experiments in the education of adults upon the fundamental choices in economic reconstruction.

(b) *Suggestions from State Boards.*—Several of the State Planning Boards show a beginning of the process, but none have carried through to an approved program. The Pennsylvania State Planning Board set up a standard of "human needs," defining this as:

more than the bare necessities required to sustain a miserable existence

and including:

health protection, the recreation and amusement requisite for well-being and comfort, means for education and transportation in adequate quantity to satisfy the reasonable desire of the average family.

This would require, they decided, about \$3,500 per family, allowing only \$15 a week for food and \$36 a month rent for the statistical family of 4.3 persons. In 1929, they reported 9 out of 10 Pennsylvania families had incomes below this standard, and today, of course, the average income is lower. Some point to the National Survey of Productive Capacity, financed by Federal Relief funds, as indicating a possible production in excess of \$4,000 worth of goods and services (1928 prices) per family with our existing plant. The Kansas State Planning Board hits at the array of middlemen in its analysis of the problem:

It has been amply demonstrated that the country has an unlimited capacity to produce. Likewise there can be no doubt that we have the capacity and the desire to consume a wide variety of goods. The maintenance of a stable economic order has apparently broken down in our system of distribution.

Present business conditions have been interpreted as pointing to the need of a reduction rather than an increase in the output of industrial plants, but no nation can become richer or enjoy a higher standard of living by producing less. In the last analysis it is the possession of physical goods, not the possession of money nor the monetary value of those goods, which makes for a high standard of living. The complexity of our distributing system with its vast network of middlemen and the resultant necessity of complex distributive services, such as insurance, credits and transportation, has led to the building up of a top-heavy industrial order in which neither producer, distributor nor consumer receives adequate compensation for his labor.

The State Planning Board of Indiana definitely rejects any long-term plan based on the assumption that poverty must remain:

The progress of research, the development of new methods of manufacturing, and of new products, clearly indicate that

there are infinite possibilities for increased activity. The old theory that there must always be a class of people of low standard to take care of menial labor is not necessarily sound. Labor-saving devices have been designed which take the place of many laborers. There seems to be no limit to what can be done in this direction.

In the report of the Minnesota State Planning Board attention is called to the necessity of increasing rather than restricting output:

It is estimated that approximately one hundred thousand families in the State are recipients of either direct or work relief. If all the reported income above \$2,500 per person were distributed among these families on relief, it would amount only to \$400 per family. Thus it seems clear that the income or general welfare of the masses of the population cannot be adequately improved through a mere redistribution of income, although redistribution may be a step in the right direction. Adequate benefit must come rather through an increase in the total income produced by the various factors in the State.

Perhaps it may be pointed out that the paralyzing effect of the present depression can finally be overcome only by an increase in total production. A change in the rate of exchange between agricultural products and manufactured goods to increase the purchasing power of the farmer may be an essential first step towards recovery. It would seem, however, that this step might have been taken and at the same time the total common wealth might have been better served by a controlled increase of manufactured goods instead of a controlled reduction of agricultural products. The resulting change in the ratio of purchasing power would have been the same in either case, but it might have been accompanied by an increase in total real income instead of a decrease as has actually been the case.

The Illinois State Planning Board emphasizes the need to maintain a high level of purchasing power:

We are plenty rich enough to maintain a decent and secure livelihood for all Americans. In fact, we cannot afford not to maintain it. And it must be established through balanced employment; through efficiency of operation (particularly in

government) and through organized insurance rather than through wholly irrational and enormously expensive "relief" for the insecure.

Partial as these analyses may be, they are important indications that citizens are trying to get beneath the superficial symptoms, and to see the underlying economic realities. The problem is, by wise planning, to help more citizens acquire a more thorough understanding of our predicament and possibilities. A great variety of discussion groups, forms, political movements, editorials, radio talks, street corner meetings, club programs, pamphlets, magazine articles, extension courses, etc., are attempting to educate adults along economic lines. The Iowa State Planning Board reported more than 90 different institutions and organizations for adult education. They recommend a state-wide extension of the forum program carried on in Des Moines. The United States Office of Education has formulated a similar program of forums for the entire country.

The Oregon State Planning Board recommends that:

1. Adult education, fostered now by the Federal Government, be organized to continue of its own momentum as a State activity after government subsidies are removed.

2. That workers' education, while keeping its essential character, be gradually widened and other forms of extension education be gradually liberalized so they will largely merge to provide common opportunities for all citizens.

3. That the State continue to foster and support public-owned facilities for radio education as it is now doing through KOAC at Corvallis.

They refer also to correspondence courses from State institutions of higher education and to the enlargement of library service.

Some of the best contributions toward adult education on economic questions are found in the movement of workers' education. Classes, schools, institutes and camps have been carried on under the Federal Emergency Relief Administration, the Emergency Educational Program, the Affiliated Schools for Workers and the Workers Education Bureau.

So recently have these entered upon rapid growth that the lines of development are still being formed. This is a strategic moment for cooperative planning to insure the absence of overlapping and the maximum return from available efforts.

(c) *Libraries*.—A large proportion of the adults of the United States enlarge and improve their understanding of social and economic problems with the aid of public libraries. The present shortage of library service must be regarded as a distinct handicap to adult education. The American Library Association reports an increase of 40 per cent in the use of libraries during the past five years, but an accompanying reduction in staff, hours during which libraries are open, and funds for books. One-third of the people of the United States have no libraries, another third have very poor libraries, and even the best libraries are in their infancy. The May, 1935, *Bulletin of the American Library Association* presents figures on the proportion of people in each state without library service.

Comprehensive plans for state and Federal aid to libraries have been submitted by the American Library Association. Their Bulletin for January, 1935, gives a brief digest of the activities of library planning committees in 41 states. Surveys of needs indicate where funds for the expansion of library service could be used to best advantage.

2. *The Integrity of Public Information*

A committee of leading scholars¹² appointed by the National Education Association to formulate desirable social and economic goals for America include as one of the ten they have chosen "Mental Security." In the January, 1934, *Journal of the N.E.A.*, they interpret the public need in the following words:

"What, indeed, may we believe?" Individual personality and public welfare depend upon a satisfactory answer to that question.

¹² Fred J. Kelly, John Dewey, Willard E. Givens, Edward A. Ross, Robert C. Moore and Leon C. Marshall.

government) and through organized insurance rather than through wholly irrational and enormously expensive "relief" for the insecure.

Partial as these analyses may be, they are important indications that citizens are trying to get beneath the superficial symptoms, and to see the underlying economic realities. The problem is, by wise planning, to help more citizens acquire a more thorough understanding of our predicament and possibilities. A great variety of discussion groups, forms, political movements, editorials, radio talks, street corner meetings, club programs, pamphlets, magazine articles, extension courses, etc., are attempting to educate adults along economic lines. The Iowa State Planning Board reported more than 90 different institutions and organizations for adult education. They recommend a state-wide extension of the forum program carried on in Des Moines. The United States Office of Education has formulated a similar program of forums for the entire country.

The Oregon State Planning Board recommends that:

1. Adult education, fostered now by the Federal Government, be organized to continue of its own momentum as a State activity after government subsidies are removed.
2. That workers' education, while keeping its essential character, be gradually widened and other forms of extension education be gradually liberalized so they will largely merge to provide common opportunities for all citizens.
3. That the State continue to foster and support public-owned facilities for radio education as it is now doing through KOAC at Corvallis.

They refer also to correspondence courses from State institutions of higher education and to the enlargement of library service.

Some of the best contributions toward adult education on economic questions are found in the movement of workers' education. Classes, schools, institutes and camps have been carried on under the Federal Emergency Relief Administration, the Emergency Educational Program, the Affiliated Schools for Workers and the Workers Education Bureau.

So recently have these entered upon rapid growth that the lines of development are still being formed. This is a strategic moment for cooperative planning to insure the absence of overlapping and the maximum return from available efforts.

(c) *Libraries.*—A large proportion of the adults of the United States enlarge and improve their understanding of social and economic problems with the aid of public libraries. The present shortage of library service must be regarded as a distinct handicap to adult education. The American Library Association reports an increase of 40 per cent in the use of libraries during the past five years, but an accompanying reduction in staff, hours during which libraries are open, and funds for books. One-third of the people of the United States have no libraries, another third have very poor libraries, and even the best libraries are in their infancy. The May, 1935, *Bulletin of the American Library Association* presents figures on the proportion of people in each state without library service.

Comprehensive plans for state and Federal aid to libraries have been submitted by the American Library Association. Their Bulletin for January, 1935, gives a brief digest of the activities of library planning committees in 41 states. Surveys of needs indicate where funds for the expansion of library service could be used to best advantage.

2. *The Integrity of Public Information*

A committee of leading scholars¹² appointed by the National Education Association to formulate desirable social and economic goals for America include as one of the ten they have chosen "Mental Security." In the January, 1934, *Journal of the N.E.A.*, they interpret the public need in the following words:

"What, indeed, may we believe?" Individual personality and public welfare depend upon a satisfactory answer to that question.

¹² Fred J. Kelly, John Dewey, Willard E. Givens, Edward A. Ross, Robert C. Moore and Leon C. Marshall.

Above our heads, giant profit-seeking concerns fight for the privileges of writing on our minds something that will help them make money. Truth-seeking and truth-telling organizations abound, but they cannot offer as much for an opportunity to enlighten the people as Mammon will pay for an opportunity to fool them.

Society has had great success in finding disinterested truth lovers and enlisting them in its service; but their voice is feeble these days in comparison with the commercialized press, screen, and radio. If amid the din of advertising ballyhoo the public knew where it could hear a clear trustworthy voice, would it not listen in? The air channel should not be monopolized as now by gainseekers; more of them should stand open to educational institutions. The fact that some educational instrument, the cinema, for example, is under private control does not absolve the owner from responsibility to use it with regard for public interest.

The more we are plied with untruth, the more we need truth. We Americans ought to go in fear of the powerful commercial interests that are trying to exploit us through gaining control of our thoughts and opinions. What irony that at the time when the truth is being discovered at a rate never before known, the truth about matters essential to our welfare is being systematically obscured as never before! Just as society has brought pure drinking water to the houses and the highways, so it ought to bring pure truth within our reach at every point and on every matter where non-social agencies are interested in hoodwinking us.

It would seem to be a proper obligation of a national agency concerned with planning for human welfare to endeavor to insure for all citizens access to known truth. Institutions of higher education represent a notable achievement in this direction. The public rightly objects to any attempt on the part of a man of wealth, a corporation or a political group to "buy up" a college or university and to use it for propaganda in a private interest. Yet newspapers, moving pictures, and the radio are commonly subject to just this kind of influence. It is fully as important to maintain ideals of integrity and fair presentation of the truth for the adult population generally, as for college students. Indeed the typical adult

is apt to be more defenseless against distortions than are students who can usually gain access to other viewpoints. Ideals of truth and freedom in channels of communication probably need to be implemented by legislation designed to produce conditions of control similar to those which have proven most successful in attaining the highest degree of integrity in academic instruction.

3. Occupational Retraining

Continuing and probably accelerating progress of science and invention tends toward obsolescence in every field of employment. Ever changing conditions make some workers who may have been well trained ten years ago, out of date today. Occupations centuries old may drop out of demand, and new ones are constantly arising.

The failure of society to provide a system of continuous vocational re-education has resulted in serious human loss. The unemployed tend to become unemployable. Some have floundered out onto marginal farm land in the mistaken belief that anyone can produce enough to eat in the country.

Figures showing industrial displacement from 1923-1929 are based upon separations of wage-earners in the industrial group (manufacturing) as terminal years of two-year census intervals. The comparison was made upon separations by identical industries and not for establishments within the same industry:

Separations, then, measure the number of men actually forced to find employment in other industries, not in other plants within the same industry. The demands of readjustment are, accordingly, more severe than they would be if the data related to individual plants. It is an impressive fact that under the prosperous industrial conditions prevailing between 1923 and 1929 one individual worker out of 20 was forced, every two years, to seek employment in a new manufacturing industry, or in a non-manufacturing industry. These conditions placed lighter demands upon industry for the training of new men, but placed much heavier demands upon wage-

earners, and enforced a degree of adaptability not required under pre-war conditions.¹⁸

To the industrially displaced should be added other thousands (the U. S. Office of Education estimates 75,000 a year) who suffer accidents or disease requiring them to take up a new line of work for which they must have additional training.

(a) *Guidance*.—The first need is for an extension of consultation and guidance service among adults. The project of the Employment Stabilization Research Institute at the University of Minnesota and the Adjustment Service in New York showed that large numbers of unemployed adults would profit by an opportunity to learn more about their aptitudes and occupational opportunities. In many communities the same counselors, testing equipment and up-to-date occupational information, which have been recommended for the vocational guidance of youth, can and should be made available to the adults of the community.

(b) *Training*.—The provision of opportunities for learning new occupations is the next step after guidance. What will it profit a man to know that he must learn a new job unless facilities are available? In the light of information about supply and demand in various occupations, and in the light of data concerning the qualifications of the vocationally maladjusted, each state should be encouraged to set up appropriate training institutes. Tuition and subsistence while learning will have to be provided for many without charge. Eventually such service may become a part of the normally accepted public education program.

The Vocational Division of the United States Office of Education report that the greatest shift in jobs takes place between the ages of 20 and 40. Many jobs picked up at the beginning of the working life are dropped during later years for positions regarded as more satisfactory for permanent

¹⁸ Mills, Frederick C., *Economic Tendencies in the United States*. New York: National Bureau of Economic Research in cooperation with the Committee on Recent Economic Changes, 1932, p. 422.

employment. No data are available on the number of persons needing such retraining. Fortunately the age level of greatest need coincides fairly well with the age period of best response to instruction. Learning ability reaches a maximum in the late twenties and declines relatively little until after age forty. It is likely that vocational training given to adults between twenty-five and forty years of age, who have already had some kinds of work experience, will prove much more efficient than training given to boys and girls in their teens. Greater learning capacity combines with stronger and steadier motivation in favor of the adult period. It may prove to be wise to give to youth some experience in a variety of simple occupations, reserving serious and thorough vocational training for later years.

Planning of vocational re-education should prevent unnecessary duplication. For occupations which are numerically large, and which require only inexpensive equipment and teachers, training can be offered in each local community. More expensive preparation for less common jobs may be planned on a district or state-wide basis. For some jobs only a few training centers in the entire nation will be required.

(c) *Resettlement*.—Federal projects for the transformation or transplanting of communities require a large measure of vocational re-education of the adults concerned. If new industries are to be brought in, a major inducement is the existence of a trained labor supply. If city dwellers are to adapt themselves, even on a part-time basis to gardening and farming, they must be educated for their new duties. The traditional "county agent" with his interest in the regular farmer is seldom prepared to assist in the adaptation of the homesteader. It is probable that the best solution for many of the communities is to choose the administrative head of the enterprise primarily because of his qualities as an adult educator. This does not mean a "teacher" in the narrow technical sense, but it does mean a person whose primary interest and skill lie in helping human beings change their habits of thought and action. Setting up some kind of school

as a unit within the community program is not enough. Either the entire enterprise must become in itself effective education or it will not succeed.

4. *The Aged*

Our aging population presents a vocational problem to which little attention has been given. The usual solution of voluntary or involuntary retirement, even on adequate pension, is doubly unsatisfactory. It too often leaves life empty for the worker, and it deprives society of valuable services which can be rendered by seasoned judgment and long experience. In 1950 it is probable that more than ten million Americans will be 65 years of age or older. How are the human resources which they offer to be used?

In earlier rural life there was always a chance to help in the care of the house and the light work of the farm or town. In the Orient age is conceded a respect and right to advise which constitutes a privileged status. The Psychological Corporation, in cooperation with Dr. Paul Lazarsfeld and Professor Charlotte Bühler of Vienna have made a beginning on the study of the best use of abilities of older persons. Biographies have been analyzed and other techniques have been applied to the problem. Investigation of worthy services now being rendered by persons over sixty, together with exploration of possibilities for extending such opportunities, should be undertaken by national planning agencies.

5. *Elimination of Illiteracy*

The 1930 Census shows 4.3 per cent illiteracy. This per cent of our population cannot read or write in any language. Investigations during the time of the World War show that the number who could not read a newspaper or write a letter was twice as great as the number of illiterates. This indicates that there are probably 12,000,000 people who are functionally illiterate in any language and probably more than this who cannot read and write English. The Census reveals that there are 1,103,134 native white illiterates, 1,513,892

Negro illiterates, and 1,304,084 foreign born who cannot read and write even in their native language. According to the 1930 Census, one-fifth of the counties of the United States made no progress in the matter of illiteracy between 1920 and 1930. The State of Iowa is reported as having only .8 per cent of their population illiterate. This .8 per cent in Iowa shows that most people can learn to read and write. Experience during these last two years has revealed the fact that adults want to learn to read and write and that many of these neglected men and women show remarkable ability to learn when given the opportunity to do so.

Investigations indicate that illiterate people have a larger percentage of children than have people higher up in the scale of education. The reduction of illiteracy implies not only the education of children but likewise the education of adults. Illiteracy is frequently the result of several generations who are underprivileged. Parents, through their ignorance or selfishness, often evade education laws and keep their children out of school. In some of the remote sections of Buncombe County, North Carolina, before the adults were brought into evening schools, it was almost impossible to secure regular attendance in the day schools. The attendance of adults in evening schools in one year increased the day school attendance of children from 68 to 86 per cent in some districts.

Literacy for all the people is an essential ideal from the standpoint of democratic institutions and a sound popular government. A nation which depends upon popular participation in government cannot afford to tolerate less than a full functioning literacy. Since 1922 the State of New York has required all new voters to be able to read and write English before being eligible to vote.

Twenty-five years ago the everyday affairs of life were less complex; it was comparatively easy for the man who could not read and write to get along. Today literacy governs to a large extent the efficiency of people in all walks of life. In our complicated civilization an illiterate person

may be the cause of serious accidents and undoubtedly is the cause of many communicable diseases.

Illiteracy is a menace in that it is a form of isolation. The illiterate is unable to read signs, articles in newspapers; he is unable to communicate with his fellows in written symbols; he cannot write to members of his family who have moved to distant places. He is often tragically barred from the services of various community agencies in that he does not know of their existence, or knowing of their existence does not know how to avail himself of the services rendered. What is desired is not just a bare literacy, but a full functioning literacy which will enable people to live more completely as workers, home-makers, and citizens. Teaching men and women to write does not give them a liberal education; it does give them the keys to knowledge.

Experience has shown that it is most difficult for the under-educated man to become readjusted to new employment. The illiterate is almost always the first to be laid off when employment rolls are being decreased and is almost always the last to be taken on when employment conditions improve.

It would seem that the time when people are out of employment would be a most excellent one to reduce our illiteracy to the absolute minimum. A literacy program would not only strengthen our democracy but it would have a tendency to make this large number of neglected individuals self-supporting.

During the last two years probably 1,000,000 illiterates have been taught to read and write. If the program now in process could be continued and intensified the illiteracy in the United States could be greatly reduced and a large number could be given an opportunity to develop their talents in keeping with our times and an opportunity to live richer, fuller, and more creative lives.

6. Consumer Education

Millions of dollars are spent annually upon the education of consumers, but this has been directed toward the interests

of advertisers. Relatively little has been done, outside of the expensive and often distressing school of experience, to aid the average adult in making wiser purchases. Extensive information, based upon scientific investigation, has been collected by the Bureau of Standards, but this is not now available to guide the ordinary shopper. Home economics teachers individually and in some of their state and national associations have worked at the problem. The Bureau of Home Economics in the Department of Agriculture has some studies available. Some publications for consumers have been issued by the Agricultural Adjustment Administration. An extensive but not very potent scheme of consumer representation was set up in connection with the codes of the N.R.A.

The present need is for coordination of these efforts in accord with a comprehensive program of consumer education through clubs, schools, newspapers, the radio and other agencies. Disinterested consumer education is, in the long run, a service to the trustworthy producer and distributor as well as the immediate purchaser.

A special aspect of this problem concerns public health. The influence of present advertising, especially radio broadcasting, on self-medication is especially in need of investigation in the public interest. Expenditures for patent medicines and quack services have been estimated as disturbingly high. The South Dakota State Planning Board reports a survey of products on sale in drug stores.

A very constructive program of adult education, valuable because of the opportunity it affords for active participation, is found in the cooperative movement. Consumers cooperatives are doing many millions of dollars worth of business in this country today, but the development here is negligible in comparison with that in some other countries, especially Scandinavia. Any committees responsible for planning consumer education might well study the values in the cooperative movement.

7. Parent Education and Family Life

Housing programs of wide scope and far-reaching significance are being considered. Figures show 80 per cent to 90 per cent of farm houses without electricity, running water, kitchen sinks, bath tubs, or showers. No figures, however, show how many homes fail to provide for children, love, security, and a type of cooperation which accords with democratic ideals. If we make the assumption that for every marriage ending in divorce there is one other marriage which is distinctly unhappy, then we must reckon more than fifteen million married adults and about as many children who are unable to realize the values potential in family life.

Among the approximately 35,000,000 parents of children under 21 years of age in the United States, comparatively few are reached by the present organized program of parent education. The National Congress of Parents and Teachers reported 135,000 parents participating in their study groups during 1934-5. A larger number, estimated by the National Council of Parent Education as 300,000, had some contact with other parent-study groups under the auspices of churches or social welfare agencies. A few thousand homes are aided each year by the understanding counsel of psychiatric social-workers and visiting teachers. Of all forms of parent education, this individual guidance, based upon trained insight into patterns of emotional adjustment and carried on over a period of several months or years, is probably the most potent, although most expensive. One of the most extensive forms of parent education is through pamphlets such as "Infant Care" which is published by the Children's Bureau in the U. S. Department of Labor, and which now has reached a circulation of more than eight million copies. Probably most parents receive occasional suggestions through the newspaper columns, magazine articles, library books and radio talks dealing with child care. Pre-parental training is coming to play an important part in some school courses in home-making for boys as well as for girls.

It should be the work of a committee on parent education, responsible to the Section on Adult Life:

1. To assemble what is now known from numerous scattered studies concerning the essentials of wholesome family life under modern conditions;

2. To study more objectively, scientifically and in greater detail than has heretofore been done the problems related to family life which now cause concern or distress to fathers, mothers, and children at various ages and in various types of community; and

3. To experiment with better means for reaching parents. It may be that in relation to new housing programs, public health projects, or recreational drama groups there may be better opportunities for parent education than have been found in the more conventional magazines, child study classes, etc.

8. *Art of Living*

With the approach of a population that is older and fairly constant in numbers, it is possible that American civilization will tend toward less emphasis upon size or numbers as a criterion of excellence and correspondingly greater concern for the quality of living.

After economic security has been established, energy will be freed for attention to life enrichment.

In the reports of State Planning Boards can be noted a definite demand for more beautiful surroundings. Art is not merely a matter for museums. As its best, art permeates a culture. The designs of restaurants, telephones, chairs, factories, warehouses, trains, working clothes, machines, schoolrooms and the thousand other items of daily life are properly matters for artistic expression. The New York State Planning Commission has voiced what is a widespread criticism of our present countryside:

A serious blight, however, is fast spreading along our highways that is blotting out natural beauty and substituting a riot of raucous signs and uncouth structures.

Highways have been changed from roads of great natural

charm and scenic beauty to roads on which the tourist sees only a riot of ugly structures and screeching signboards.

The Maine State Planning Board condemns the damage to beautiful landscapes by ruthless industrial developments:

In many places the rivers are hidden by dingy commercial buildings and cheap unsanitary dwellings.

There are many regions sadly deficient in beautiful public buildings, suitable concert halls, public libraries, or theaters. The American Library Association reports that 40,000,000 people in the United States have no local public libraries of any kind and state traveling libraries reach comparatively few of them. Planning committees in many states have already devised programs which will extend existing resources in the directions where library service is most needed. A request for allotment of Federal funds to add workers and books has been made to the relief administration. The last five years has shown a 40 per cent increase in the use of libraries but a decrease in available funds. In most states the total of all library appropriations amounts to only a few cents per capita per year, and may be seriously out of proportion to the importance of this agency of adult education.

Symphony concerts, community singing, paintings for public buildings, and traveling theatrical companies have been made available to many communities under the Federal Emergency Relief Administration. It is the appropriate task of planning agencies to investigate the result of such services and the possibility of a permanent program. The Sirovich Bill, before the present session of Congress, proposes to establish a Federal Department of the Fine Arts.

There are many evidences of a growing sensitiveness of American adults to the artistic qualities of the environment. The movement should be aided by planning agencies which will enlist the residual creative capacities of more citizens in the improvement of home surroundings, working places, community buildings, and in the provision of better and more abundant cultural opportunities.

9. *Citizenship*

The value to a democracy of processes for developing a higher level of participation in citizenship is so obvious as to need no supporting argument.

Five projects are suggested for the present work of a committee concerned with this general problem.

(a) *Non-voters*.—What are the discoverable characteristics of non-voters? Why do they fail to take part in elections? Would greater participation by these millions of citizens be an asset?

(b) *Competence of voters*.—More important than getting non-voters is the improvement of the qualifications of the voters. Studies should be directed toward discovering what comprehension they have of the issues presented by their ballot, and the types of training which would bring about a more enlightened and judicious use of the franchise. Community forums and neighborhood discussion groups offer some promise.

(c) *Participation in civic affairs*.—Voting is only a small part of the civic service which adults might render. There is need to list more definitely some of the other functions of citizenship. One of the values of the old-fashioned rural school district which ought to be preserved as we, for sound economic reasons, organize larger units of local government, is the amount of citizen-participation which it encouraged. Democracy took immediate concrete form in school meetings and town meetings. Local government was both a training school and a laboratory for citizenship.

It is not hard to find evidence of widespread indifference toward municipal, county, state and national needs. Large numbers of citizens have assumed a very passive rôle. Government does things to them or for them, but they do not feel themselves to be, in any vital way, the government. This is an unhealthy state of affairs for the preservation of Democracy.

One of the best steps to be taken now, in preventing de-

generation of our political life into a dictatorship of the few, is to engage large numbers of citizens in civic enterprise which they care about.

Some of these may well be organized in local communities by functional groups. What could the local architects do if they were to plan cooperatively for the welfare of their own town or county? What would the local physicians suggest and what responsibilities could well be given to their county medical society? How could teachers, housewives, artists, construction engineers, or other occupational groups be utilized? Merchants' associations, bankers' associations, and labor unions have already demonstrated considerable power, but in some cases they need to be encouraged to direct their strength toward community welfare.

Credit unions, cooperative marketing associations and consumers' cooperatives represent other agencies which may serve to develop a new type of participation by citizens in the conditions of their own living.

(d) *Local pride*.—The development of communities with pride in unique customs and culture would considerably enrich our American life. We have been accused with some justice of allowing the possibilities of communication, rapid transportation and mass production to develop standardized living. In the drug store windows of every town from coast to coast appear the same slogans. In a given week, all across the country the same movies are shown, the same popular songs hummed, the same "craze" talked about.

A beginning could be made by the preservation of values from the many cultures that have been brought to this country. The New York State Planning Board comments upon the neglect of many foreign-born groups because of the widespread acceptance of the "concept that the United States is spiritually and culturally an extension of Great Britain." A quarter of the population of the United States (half of the population in some states, like New York) came from non-English speaking cultural backgrounds. The type of Americanism which neglected the heritage of these many peoples is fortunately passing. A newer form of Americanism is emerg-

ing which rejects uniformity as a national ideal, and encourages the development of the talents and traditions of each of the minorities. A study should be made in each state of minority culture groups and their special assets. Their appreciation of America will grow with America's appreciation of what is best in the culture they have brought to these shores.

Another study should be made within each state of the centers of community pride. Oberammergau is world-famous, but there are scores, perhaps hundreds, of American communities which have developed highly creditable traditional festivals of music, pageantry or drama. Handicrafts attain special heights in certain other communities. Planning for the development of human resources will give considerable emphasis to discovering and nurturing enterprises which justify a community pride.

(e) *Participation in planning.*—The planning process itself should be viewed as a major contribution to better citizenship. The broader the base of participation, the better. Planning commissions should operate not only in states and regions but in large and small communities. Within the community, if planning groups can include committees on all the aspects of natural resources, social organization and human development, more people can be given a share and some understanding of what is going on. Constant interaction between various groups in the community will doubtless create some friction, but will provide many opportunities for constructive, active cooperation. Emphasis upon scientific study rather than political pressure, and upon large if fairly remote gains as contrasted with immediate advantage, will contribute a genuinely ennobling influence in community life. This is a superior form of adult education.

VIII. SPECIAL ADVISORY COMMITTEES

1. *Reorganization and Consolidation of Local Units of Government; State Equalization and Federal Aid*

If just one enterprise were chosen for immediate concentrated action, to increase opportunities for the development of human resources, this might well be the project. At almost

every point in every program to extend the necessary opportunities, we are confronted by the fact that the districts most in need cannot afford, under present conditions, to provide the essential services. This applies not only to adequate schools but also to public health nursing, adult education, child guidance clinics, libraries, recreational agencies and community centers.

Old boundaries, established in some cases a century or more ago, do not fit modern conditions. With modern highways and automobiles, entire counties may be traversed more quickly than a single district could have been in early days. Radio and telephone unite much larger areas, instantaneously. At the same time new and costly public services have developed, quite beyond the resources of most of the small districts. As a consequence tax burdens become intolerable, without providing adequate child opportunity.

Almost every state planning board reports the same problem. The Oklahoma Board comments on the fact that communities with good schools, public libraries, police and fire protection, paved highways, public utility service and community centers pay less taxes than others without any such services. One state reported that in the 245 districts where average attendance was 5 or less the current costs were over \$340 per pupil, whereas, with enrollments with 25 or more, costs ran between \$60 and \$70 per pupil for a much richer educational program. An Indiana study showed that Fort Wayne, the wealthiest city, could finance the proposed program (\$1,000 per elementary teaching unit and corresponding amounts for high schools) on a local tax rate of 19 cents per \$100 assessed valuation. Nashville, Indiana, would have to levy \$3.67 per \$100 assessed valuation to finance an equivalent amount of education. Warren Township, Marion County, is able to finance the \$1,000 program on a 15 cents tax levy while Springfield Township, Franklin County, would have to levy \$4.36 per \$100 assessed valuation. In Kansas the per pupil cost of running one-teacher schools (1933-4) ranged from \$18 to \$800.

In Missouri among 8,893 school districts there are reported 1,100 with fewer than 10 pupils in attendance. Seventy-two of Missouri's 114 counties have no public library; 55 counties have no hospitals. Only 19 per cent of 713 communities have sewage systems.

In Pennsylvania:

87 per cent of the school districts are too small to maintain a high school program with reasonably fair offerings with some degree of economy.

Of the 2,585 school districts in Pennsylvania only 172 offer any work in home economics and only 115 offer agricultural education.

The Michigan State Planning Board found that existing inequalities were rapidly growing worse. Among the 39 poorest counties, averaging less than 30 people per square mile, 34 declined in population during the last decade while the population of the state as a whole rose:

Educational opportunity in the United States is not and never has been equal. The first reaction of foreign visitors to our schools systems is one of astonishment that there is such a wide gap between the best schools and the poorest. There is no more striking and unassailable example of this difference than the school buildings in which our children are housed. Equality of opportunity! There are 2,000 communities in one state that have no school buildings at all—*never* had a school building—but hold school in corn cribs, old churches and abandoned homes! A recent survey of the National Education Association, covering half the states and including 90 cities of over 30,000 population in other states, indicates that more than 687,000 pupils are housed in school buildings, which have been condemned as unsafe or unsanitary; that almost the same number go to school each day in portable, rented or other temporary structures; while 392,000 children can attend school only part time because of inadequate housing facilities. More than 2,000,000 children are attending small schools which in the judgment of chief state school officers ought to be abandoned in favor of larger consolidated schools.

With all the expansion in public works fostered by the Fed-

eral Government, supported in part by state and local communities, one might think that schoolhouse construction had gone on apace to lend a hand in the revival of prosperity by restoring employment for unnumbered thousands. Yet a check on our nation's school buildings shows that less than 5 per cent of them have been constructed since 1930; one third of them were erected between 1870 and 1900; and nearly 8 per cent of the school houses, through the doors of which our boys and girls pass to their classes each day, date back to the Civil War period.

The average number of days of school provided annually ranges from 98 to 163 in various parts of the United States; expenditures per pupil for education range from \$32 to \$153; the average annual salary of teachers from \$593 to \$2,494; the value of school property from \$74 per pupil in one state to \$391 in each of two other states.

Neither the educational task nor the finances to perform that task are anywhere like equal. In one state 31 per cent of the population are children of school age; in another state only 17 per cent are of that age. One state has approximately eight times as much wealth per school child as some of the less fortunate states.¹⁴

Of the 127,000 administrative units in the United States 109,000 are common school districts, i.e., districts other than city, county, independent, union or consolidated, separate high school, town, and township. These school districts are managed by about 400,000 school board members, employing less than 900,000 teachers. In twelve states school board members outnumber the teachers, and some districts have more board members than pupils. 2,350 schools in Kansas, or 33 per cent of the number operating, enroll not more than 10 pupils. Every county in the state has at least one school with 10 pupils or less. Differences in cost among the more and less favored counties are shown in the following table:

¹⁴ Farley, Belmont, "Have We Broken Faith," *New York State Education*, May, 1935.

AVERAGE VALUATION PER PUPIL ENROLLED, AVERAGE TAX RATE IN MILLS,
AND THE AVERAGE COST OF EDUCATION PER PUPIL IN A.D.A. IN 12 COUNTIES
IN KANSAS¹⁸

County	Average value per pupil enrolled	Average tax rate in mills	Average cost of education per pupil in A.D.A.
Clark.....	\$33,701	4.09	\$97.05
Edwards.....	33,042	3.52	87.68
Chase.....	26,572	2.34	86.58
Rice.....	26,512	2.27	96.19
Saline.....	26,224	2.00	97.38
Lincoln.....	25,634	2.31	96.75
Average for 6 counties.....	\$28,614	2.76	\$93.61
Graham..... ^a	\$8,897	4.14	\$63.68
Decatur.....	8,554	6.18	61.29
Crawford.....	8,458	3.30	49.85
Rawlins.....	8,337	7.40	75.31
Cherokee.....	7,478	4.13	45.91
Sheridan.....	4,925	6.08	36.70
Average for 6 counties.....	\$7,775	5.21	\$55.46

Among the 4,749 school districts of Oklahoma, 312 have assessed valuations exceeding \$15,000 per pupil in average daily attendance, while 24 have valuations of less than \$500 per pupil (a.d.a.). The Wallington district in Bergen County, N. J., has \$2,080 per pupil, as compared with the Edgewater district of the same county, which has \$58,380 per pupil. While the Elk and Logan districts of Gloucester County, N. J., have less than \$1,400 equalized value per pupil, the Brigantine district of Atlantic County in the same state has \$106,420 of equalized value per pupil. Wherever studies of ability to support education have been made, the results show such amazing differences among districts. Data from New Hampshire and South Carolina are shown in the following tables:

¹⁸ Source: Kansas Legislative Council. *Financial Conditions of Kansas Schools*. Topeka: Kansas Legislative Council, 1934. (39 p. mimeo) pp. 17-30.

CURRENT COST OF PUBLIC EDUCATION IN 8 SCHOOL DISTRICTS IN NEW HAMPSHIRE
PER \$1000 OF EQUALIZED VALUATION, 1932-33¹⁶

Administrative unit	Expenditure per \$1000 of equalized valuation	
	From local funds	Total current expenditures
Monroe.....	\$.94	\$1.34
Jackson.....	3.22	3.33
Somersworth.....	1.94	3.91
Shelburne.....	3.32	3.97
Lempster.....	5.92	21.46
Mason.....	7.60	21.68
Middleton.....	4.89	24.10
Seabrook.....	9.01	24.54

MILL LEVY AND EXPENDITURES PER PUPIL IN AVERAGE DAILY ATTENDANCE IN
6 SOUTH CAROLINA COUNTIES, 1933-34¹⁷

County	Mill levy	Expenditure per pupil in A.D.A.
Pickens.....	5.8	\$37.92
Lee.....	4.7	19.50
Kershaw.....	3.3	20.78
Average for 3 counties.....	4.6	\$26.06
Allendale.....	24.7	\$33.53
Berkeley.....	22.0	19.75
Barnwell.....	19.2	25.66
Average for 3 counties.....	22.0	\$26.31
Average for the state.....	11.1	\$26.56

Two measures seem called for within each of the states. One is increase in the size of the administrative unit; the other is participation by the state to equalize opportunities for children as well as burdens for taxpayers. The small school

¹⁶ Source: New Hampshire State Board of Education. Report. *Sixty-Eighth Report upon the Public Schools of New Hampshire*. Concord: The State Board, 1934, pp. 124-25.

¹⁷ Source: South Carolina State Superintendent of Education. *Sixty-Sixth Annual Report*. Columbia: State Department of Education, 1934, pp. 116 and 122.

district operating a single one-teacher school is admittedly uneconomical and inefficient. It is interesting to observe that, if the number of school districts were reduced by 90 per cent, there would still be an average of three or four per county. What is needed is some new type of community school organization, one which centers around a population group or town and radiates out from this center with schools, libraries, and centers for adult education as well as for education of children. Such a unit might become a significant force in the upgrading of rural life. Although this concept has been broached a number of times in state school surveys, it has never been worked out on a comprehensive scale. State studies of population distribution, highway location and topography should make possible planning for desirable large scale consolidations of school districts and school buildings. Equalization plans, using state aid to weaker schools, are now in operation in many states.

Intrastate adjustment, even when extended and improved, will not carry us far enough in the direction of equality of opportunity for youth.

Differences among the states in their ability to support public services for human welfare are almost as marked as differences among districts within any state. A recent survey¹⁸ used the Model Tax Plan, prepared by a Committee of the National Tax Association in October, 1933, and compared ability to pay with an index of educational need:

According to the data presented, the ability of the state to support education under the tax plan used varies in the proportion of one to approximately six and a half (1.00 to 6.14, 7.68, and 9.14, according to the measure of educational need used). While Mississippi could raise \$1.00 for the support of a given program of education and Alabama could raise \$1.27, Nevada could raise at least \$6.14 and New York could raise \$5.35 for the same purpose. The six richest states considered as a group are four times (3.90, 3.95, or 4.37, accord-

¹⁸ Chism, Leslie L., *The Economic Ability of the States*. Teachers College, Columbia University, New York.

ing to the measure of educational need used) as able to meet their educational obligations as the six poorest states. Likewise, the twelve richest states are three times (2.91, 2.85, or 3.14, according to the measure of educational need used) as able as the twelve poorest states to support their educational obligations. The range in ability is greatest during the depression periods.

Eleven states would find it necessary to appropriate to education 50 per cent or more of their total tax collections in order to finance a program, out of their own state and local tax resources, equivalent in cost per unit of educational need to that of the average program afforded the children in the country.

The report of the National Advisory Committee on Federal Relations to Education (October, 1931), prepared at the request of the President of the United States, has formulated general policies and administrative procedures for enabling the Federal Government to meet some of its national responsibilities. They urge:

Further and continuing studies of tax systems, distribution of national income, living costs, public expenditures for eleemosynary institutions, bonded indebtedness. Federal aid to states for purposes other than education, and of such other features of the situation as may be necessary to understand the total economic, political and fiscal organization of which the school system is a part. Such facts in particular should be sought as will reveal how far and by what methods the people are justified in using the Federal tax system to supplement state and local taxes in support of public education in the states in order to insure meeting fully the national responsibility for education.

Similar studies should also be made at once to answer two questions:

First, How far shall the Federal Government properly grant funds either to the states in support of specially designated institutions or directly to particular institutions?

Secondly, What are the right uses of the remainder of the public domain in the states for the uses of education?

It is the obligation and special opportunity of the National Resources Board (or its successor) to study Federal

aid in relation, not only to schools, but to the equalization of many aids to human development. The Treasury Department is reported to have under way a study of overlapping tax units. Public health, libraries, recreational facilities, community centers, parent education, and possibly other activities in addition to schools should be included in a well-considered national plan looking toward more equitable distribution of burdens, and a greater equality of opportunity.

2. Community Surveys Relating Social Trends and Educational Planning

A first essential of good planning is the collection of the data required to describe present conditions and to define the possibilities. If communities are to improve their capacity to plan, they will need, first of all, improved methods for grasping community problems in all their relationships. Many community studies and surveys have been made. Some have been too academic and ended in little but extensive files. Some have been too limited in outlook, dealing with all problems from the special viewpoint of recreation, reducing delinquency, planning a church or Y.M.C.A. program, locating school buildings, or reducing taxes. What is needed is a survey procedure at once more comprehensive and more practical.

It is surprising, in view of the frequent insistence in educational circles upon relating schools to community life, how few educational programs have been built upon thorough study of the trends in the life of the local region. There have been numerous community surveys under the leadership of able sociologists. There have been scores of school surveys directed by capable educational administrators. Seldom, if ever, have the two been united in such a way as to reveal at every point the interaction between community life and educational measures.

One of the first enterprises sponsored by the National Resources Board (or its successor) in defining major tasks of human development, might profitably be a series of surveys in different types of community, integrating social analysis and

educational planning. Such a survey would take account of natural resources, characteristics of the population, occupational trends, recreational activities, and the many influences which contribute to health and enlightenment. The selection of communities might well depend in part upon assurance that the survey would not end in a report, but would be carried on into pertinent revision of educational policies. Provision should be made for contact with these communities over a sufficient period to demonstrate the consequences.

At least one more detailed proposal, outlining an integrated study of education and its social background, has already been prepared by a group of leading sociologists and educators and awaits only the necessary funds to go into immediate operation. No other research project appears likely to contribute more directly and more comprehensively to local, state, regional and national planning for the development of human resources.

The committee on surveys should not, however, do one set of studies and then quit. They have a continuous assignment. They are to help all types of community develop constantly improving methods of self-study. New and easier techniques may be devised to enable the collection of necessary data. Clumsy and costly compilations which offer little guidance need to be weeded out of our planning processes. It may prove advisable to work out a number of sub-committees under the general guidance of this advisory group, each sub-committee to be concerned with certain types of community.

3. Conservation of Superior Abilities: Selection, Training and Utilization of the Most Talented

Among the crowning achievements of a civilization are the triumphs of its scientists, organizers, artists, musicians, physicians, teachers, writers and others with exceptional genius. "Talent" should not be limited to academic or artistic abilities, but should include all great social contributions.

Productive genius in any field is dependent upon both native

capacity and adequate opportunity for the development of these gifts.

No comprehensive effort has thus far been made to discover among the children and young people of this country, those equipped with unusual promise. Only a few attempts have been made to set up special classes appropriate to the most talented.

The program of this committee should include:

(a) An appraisal of tests, ratings, early achievement records and other bases for predicting unusual aptitude; encouragement of research on new techniques.

(b) A review of methods now in use for developing and training each type of superior ability.

(c) A study of handicaps and obstacles which now prevent the realization of full possibilities of superior talent, with a view to the kind of social planning which will remove these hindrances to development.

(d) A follow-up study of persons with exceptional aptitude and training to discover any measures which might insure the better integration of special talents in the activities of society.

In addition to those who can expect to center their vocation in the exercise of their gifts, it should prove possible for many more to enlarge personal satisfactions and to give a high type of service to society in avocational activities.

The program for the superior children should, so far as possible, function as a part of the general provision for better adjustment to individual differences, increased opportunity for schooling, and the more appropriate vocational guidance of youth and adults. It is listed as a separate project in order to insure the appointment of a committee concerned with the general welfare of this exceptionally important group. Such a committee should function, in practice, through advice to other planning groups concerned with the welfare of all children, all youth, and all adults. It might be a social injury to institute any program which seemed to serve only a special group, however carefully selected.

Attention should constantly be given to the effects of favorable environmental stimulation, from earliest years on

through adult life, in producing superior performance on the part of persons who may have shown little promise beyond the ordinary.

4. *Special Advisory Committee on the Prevention of Delinquency and Crime*

The crime problem is largely a youth problem. Examination of arrests during 1933 showed a rapid increase in numbers from age 16 to 19 which was the age of most frequent arrest. Two-thirds of those convicted had prior convictions—a striking testimony to the failure of present penal agencies.

Surveys and crime conferences innumerable have been carried on with monotonously similar conclusions. Crime is the outbreak of a disease which ramifies throughout the entire social system. Attack on crime calls for improved housing, better parent education, enlarged recreational programs, more vital school curricula, provision of appropriate jobs for everyone, mental hygiene clinics and counselors, and more effective programs for developing and conserving physical health. There is no single cause for crime and faith can be placed in no single remedy. Nothing less than fundamental reconstruction of certain aspects and areas of our civilization will suffice. Perhaps the magnitude of this task is what leads to one conference after another, with so little attempt to apply what is now known about the causes and prevention of delinquency.

Several devices now in use (notably at University of Michigan, and Des Moines public schools) enable the selection of a small group of children from whom will certainly come a very large proportion of future delinquents. Such pupils should be known in every school system, plotted on every community map, and should be made the basis for constructive programs of re-housing, vocational adjustment, recreation centers, child guidance, parent education, curriculum revision, church and club activities, etc.

Reports from State Planning Boards concerning delinquency and crime showed the problem conceived largely in terms of modifying existing penal institutions. While insti-

tutions run along genuinely educational lines, rather than as measures of social retaliation, would be a significant improvement, little in the way of reform should be expected when youths are sent back jobless into the same neighborhood, the same gangs, the same limited opportunities, the same stimulation of wants by movies and advertising. The best program for crime prevention is the whole program for developing human resources. Measures applied to one area or to only one phase of the problem are likely to be ineffective. Measures applied for short periods are likewise inadequate. Delinquents are likely to need not merely a month of clinical study or a year of institutional confinement, but a ten or fifteen-year program of guided rehabilitation in a reconstructed community. If suitable measures are worked out to foster the all-round development of normal children, normal youth and normal adults, it will not be difficult to care properly for the delinquents within that more inclusive program. In the absence of any general plan for conserving human resources, special provision of the necessary jobs, recreation, housing, education, health services, etc., for delinquents would mark them out as unduly favored above other youth.

Reduction of crime has been recognized as an important concern for local, state and Federal Government. There is strong public support available for a program of crime prevention. In some cases planning for the development of human resources can best be inaugurated by an attack on the sources of crime. Many of the activities proposed in this report for sections on human genetics, childhood, youth and adult life will flow naturally from a comprehensive attempt to get at the roots of delinquency and crime.

5. Personnel to Aid in the Development of Human Resources

During the years from 1910 to 1930 the aggregate public service group nearly doubled its numbers. Machinery constantly increases the productivity of industrial workers, decreases the number needed in order to achieve any given production level, and makes the surplus workers available for the many services. Dr. Frederick C. Mills has calculated

that production per worker-hour in 1933 was 71 per cent above the 1919 level, and the rate of increase is still rising. Since mass purchasing power is not being raised accordingly, a large number of workers must be unemployed or employed in some new form of service.

There is no "new industry" which offers employment possibilities more needed by society than the services concerned with human welfare. The Committee on Costs of Medical Care indicate that in certain areas more health service is needed. State planning boards make a similar report. If we were to carry on all public education in accord with modern ideals, using activity programs, classes of moderate size, attention to individual differences, providing psychological and other guidance service, the employed personnel would amount to some three million rather than the million teachers employed in 1930. Adult education and community arts and recreation as outlined in preceding projects could use another million or two. Scientific research and the creative arts enlarge their horizons with each new discovery and will never be over-supplied with competent workers.

As the relief projects have demonstrated, it is not easy to take all of the present unemployed and to utilize them for service enterprises. There are some who are qualified, or who can by training readily become qualified to work with children, youth, and adults in projects for human development. Millions, however, are unfitted for this type of service. At the same time there are other workers who have had advanced college and professional training now holding down routine jobs which could well be filled by less capable persons. What is needed is to draw up into scientific, artistic and social service occupations the ten or twelve million workers who are best qualified, leaving the jobs thus vacated for others.

There is, at present, no adequate record of workers who might be utilized in a program for the development of human resources. We do not know, among the graduates of our professional schools, how many are employed in the profession for which they were trained, how many have taken inferior bread-and-butter jobs, and how many are now unemployed.

One of the first surveys to be made by a national planning agency, in cooperation perhaps with the Civil Service Commission, the United States Employment Service, and any other groups concerned, should locate the people who have had training and experience related to the work of the various sections of the planning organization. Whether or not certain studies should be undertaken, certain services offered, depends often upon whether or not competent persons can be found. A personnel survey is a prerequisite to wise planning of the work of the planning agencies themselves.

Among the personnel resources not now fully utilized are many women who left teaching, nursing, social work, research, the arts, etc., in order to raise a family. Under modern urban conditions these women often could give part time to civic enterprises to the very great benefit of their own lives and the community. Another reservoir of human resources consists in older men and women who may have retired from business and whose families are now grown.

As service enterprises in connection with the conservation of human resources are formulated, there may become apparent a demand for types of training rather different from those now given in professional schools. The youth programs offer a good illustration. The ordinary teacher, equipped by ordinary courses in education and supervised practice teaching, would be but poorly prepared for youth leadership in a community or in a C.C.C. camp. It will be one of the functions of the committee on personnel to forecast needs for new forms of training and to cooperate with agencies of higher education in the development of appropriate programs.

Another function of the committee on personnel will be to recommend methods for bridging the gap which now tends to isolate each professional group. Social workers are trained with other social workers; they read social work journals and attend social work conferences. Teachers are prepared in a teacher training institution, read pedagogical literature, and attend conventions of various educational associations. Physicians, nurses, recreational leaders, religious workers, and others concerned professionally with some aspect of human

development tend toward a similar segregation. In the interests of the whole child with whom these many workers deal, it is important to get these specialists together. This will not be easy. Vocabulary and method of thought differs in each field from every other. Perhaps it will be possible to plan processes of training and community relationships in such a way as to counteract the tendency to portion life out in sections to various specialists.

This committee may further investigate methods of selecting workers for public service. The Civil Service Commission, the U. S. Employment Service, and, recently, the T. V. A., have accumulated valuable data. If large numbers of workers are not to be needed in industry and agriculture but are to be absorbed in services under social control, the need for efficient techniques of placement and promotion will increase.

Approaching the problem of personnel, finally, from the human point of view, workers are not merely sources of labor, but ends in themselves. It will be a proper concern of the personnel committee to appraise the opportunities for satisfaction on the job, and for personal growth, for all workers concerned with human resources. Except as the investigators, planners, teachers, leaders and other volunteer and employed personnel are themselves living a wholesome and satisfying life, their contribution to others is likely to be impoverished. The methods for studying morale and work satisfaction as developed in industry will probably need some modification when applied to other groups, but the problem is not beyond our present technological resources. It would be unfortunate if the workers whose efforts are devoted to the conservation and development of human resources in other people were not themselves given opportunity for the highest type of living.

IX. SUMMARY

Human resources are more valuable than all other assets of this nation, but are now frequently wasted, underdeveloped or misused. Planning for the wise use of natural resources involves and depends upon social planning.

It is recommended that some members of national, regional, state and local planning boards be chosen because of their interest and competence in matters of human development.

A. A section on human genetics is recommended:

1. To assemble existing data.
2. To arrange conferences and define problems.
3. To promote research.
4. To discover ways of educating the public on matters related to the improvement of our biological heritage.

B. A section on childhood is recommended to plan for such matters as:

1. More adequate service to child health.
2. Extension of safety education.
3. The prevention, correction or compensatory adjustment of handicaps.
4. Development of nursery schools and kindergartens.
5. Better adjustment of school programs to individual differences.
6. Camps for year-round use under public school auspices.
7. Improvement of the contribution of moving pictures and the radio to child life.
8. Competent recreational leadership for more playgrounds.

C. A section on youth is recommended to plan for such matters as:

1. A better definition of standards and objectives in the development of adolescents; inventories of agencies serving youth and indication of groups not now reached.
2. Coordination of the many agencies and programs designed to serve youth.
3. A continuous collection of occupational information, the improvement of instruments for diagnosing aptitudes, and free vocational education, with special consideration for the vocational problems of Negro youth.
4. Enrichment of recreation, by diminishing the sharp contrast between labor and leisure, providing added place and personnel, increasing opportunity for active participation, developing clubs, and facilitating travel.
5. Constructive citizenship, by increasing opportunities for

youth to cooperate actively in planning and carrying out civic enterprises.

6. A school program adapted to modern needs, understood by the community, integrated with the work of the community, and serving all youth able to profit by further instruction.

D. A section on adult life is recommended to plan for:

1. Increased understanding of contemporary economic and social problems by citizens.

2. The integrity of public information.

3. Occupational rehabilitation based upon analysis of individual abilities and appropriate opportunities for re-training, with special attention to new types of communities now being established under Federal auspices.

4. More worthy utilization of the abilities of persons over 60 years of age.

5. Elimination of illiteracy.

6. Consumer education.

7. Parent education.

8. Fostering the art of living.

9. Training in a higher type of citizenship by improving the qualifications of voters, enlisting individuals and functional groups in activities of civic service, developing distinctive community cultures, and utilizing the planning movement to give to many appreciation of scientific habits of approach and perspective among immediate demands.

E. Special advisory committees, cutting across section lines, have been proposed to plan for:

1. The reorganization and consolidation of local units of government, with consideration of state equalization and Federal aid.

2. Continuous study and survey of representative communities, integrating the best procedures which have been typical in the past of "social surveys" and of "educational surveys" and developing new methods for self study by communities.

3. Conservation of superior abilities, improved selection, training and utilization of many forms of talent.

4. Prevention of delinquency and crime.

5. Personnel to aid in the development of human resources.

GOODWIN WATSON,

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The Exploitation of Youth*

THE subject I am to discuss has already been alluded to many times in the addresses of yesterday and today.

I do not presume that I can add anything to what the members of this Association already know about the extent to which the youth of this generation are being exploited. One has only to cast his eye over the world to note that youth are being used by the dominant figures of many nations to promote their political philosophies and their nationalistic ambitions. Where wars are fought, youth fight them; where new countries are conquered, youth do the conquering; where crusades are promoted, youth carry the banners and beat the drums. Old heads may plan a communistic state, but the Young Pioneers and Young Communists burn with enthusiasm for it. *Der Fuehrer* may promulgate a Nazi philosophy, but the young Germans organize and promote its interests. Mussolini may create a fascist state, but his Black Shirts are, for the most part, the young people of his nation. The Mikado and his cabinet may plan an imperial, oriental empire, but it is the young men who go shouting "*banzai*" to acquire new territory for the empire.

Everywhere youth are being exploited. The older generation declares it's a young man's world; the young men believe it. The very folly and inexperience of youth make them easy victims of those who would use them for some ulterior purpose; the more majestic, the more flamboyant, the more emotional the appeal, the easier it is to lead the youth of any country or of any generation. From time immemorial we have declared that youth holds the key of life. We have played up the thought that life to them is an adventure and that civilization will be advanced through their courage and resourcefulness; and then we have deliberately set up agencies

* An address delivered before the National Association of State Universities, Washington, D. C., November 22, 1935.

which make individuals the creatures of the state or the subservient followers of some self-seeking group. That's what is happening now, with the world in turmoil, with national ambitions clashing with national ambitions, with millions unemployed and distress still everywhere. Youth are hearing for the first time that many of the channels of yesterday are closed to them; some have returned to school because they found no place in the economic world; others have gone on relief; others are dawdling on the streets, finding no outlet for their youthful energies or their youthful enthusiasms. With the future uncertain, it is no wonder that young people of this generation are in danger of becoming the easy prey of the social racketeer who tells them that America is not the fair land of hope and opportunity that it was pictured to be.

Against the dark picture which these promoters portray, the youth of this country are not reminded often enough of the changes for human betterment that have been effected here, of the difference in the standard of living in this country as contrasted with that maintained elsewhere, of the opportunities that exist for education, or of the freedom of thought, of speech and of action that they enjoy. Nor are they told that, as soon as a particular pressure group secures their allegiance, it is likely to become a domineering force; it curtails the freedom which has been their birthright, and it becomes militant against those who decline to accept its precepts. Propaganda alone will not insure social progress; indeed, it may prevent the making of desirable social adjustments.

The difficulty of maintaining an informed public opinion with regard to public matters is imperiled by the great variety of pressure groups, some conservative, some radical, that are now conducting proselyting campaigns in this country. Many of these campaigns are directed at the youth of the country. There is only one agency endowed by nature, tradition and purpose, fitted to combat this tendency, and that is popular education. It has been and should remain the chief means of control in a democracy. If it resigns its prerogatives to

biased and prejudiced groups and then becomes the tool of these self-perpetuating agencies, the doom of democracy is sealed.

The world has always been a bog for those who are willing to sink in it. The youth of today do not wish to be caught, but they fail to see the trap. They are as bewildered and confused here in America as anywhere in the world. As yet they have not joined in any single crusade, but there are campaigns under way that may catch their enthusiasm and impel them to action.

This has already happened in Russia, in Italy, in Germany, and in Japan. And even in America the political leaders are presenting widely differing appeals to the youth of the country. One school of political thought maintains that the civilization we enjoy is the result of personal courage, of the spirit of adventure, and of the limitless opportunities that this country has afforded. It tells young people that every limitation of these liberties and opportunities is a step in the direction of mass slavery.

Those who scorn rugged individualism are telling youth that the civilization of yesterday was built by a selfish and arrogant aristocracy of wealth that exploited the masses, and that our cities, means of communication and travel, hospitals, schools, and churches have been erected by the sweat of the dumb driven millions who had no voice in the program. They picture a new civilization for tomorrow—a greater, more tolerant, more sympathetic civilization in which nobility of character and chivalrous intelligence will be the sources of greatness.

The fact that we know that truth does not reside in either of these extreme points of view will not deter the representatives of both from trying to deceive the youth of this country with false claims and specious arguments.

This appears to be an especially favorable time for the launching of political propaganda on a national scale. Twelve million young persons have reached the age of employability in this country since 1929. Some of them are in school or have secured employment, but about 8,000,000 have no work

and are not in school. They will be especially susceptible to indoctrination, but no youth groups will be immune to it.

Never in all our experience have there been so many youth movements. Each one has its own special variety of salvation which declares that unless youth subscribe to it they are doomed to destruction. The proponents of these movements fall readily into two classes—the conservatives, who preach a doctrine of ultra-Americanism, and the radicals, who propose sweeping reforms for every aspect of society. The conservatives are preparing the ground for a vigorous campaign of Americanism. They maintain that many subversive ideas have filtered into the American consciousness without much effective criticism or exposition of American ideas. Consequently the Constitutional Protection League, the Crusaders, the Sentinels of the Republic, the Paul Reveres, the Liberty League, and other similar organizations are now preparing to circulate material, to send out lecturers, to use the films in combating the radicalism inspired by foreign ideas and calculated to pervert the American morale and undermine the patriotic faith upon which the republic is founded.

There is another group of organizations, less conservative and less radical, but which, nevertheless, desires to propagandize the youth of the country. Sometimes the organizations represent a political party; sometimes a church; sometimes a business enterprise, as, for example, a newspaper; sometimes they represent nothing but themselves, but in every instance they are promoted for some ulterior reason, and are maintained by a membership which consists largely of young people. In nearly every instance they justify themselves on the ground that the young people are sadly uninformed or misinformed and that their future welfare depends upon their acceptance of the particular creed or theory or program which the organization advocates.

Within a month I received a letter from a leader in one of the prominent political parties of the country, outlining a plan for the *organization of the colleges and universities of the country to promote the interest of his party*. Not long

ago a prominent worker in one of the political parties of Minnesota called me to say that his party was coming over to organize the campus. When I asked him what he meant, he said that they proposed to organize political clubs, to have torchlight parades, to send speakers, and to distribute literature on the campus. When I demurred, he said, "Don't you understand that the University of Minnesota is a public institution, supported by tax money, and aren't you interested in having your young people know the issues of the campaign?" I had to say that perhaps the reason why they should not come was because the university is a public institution; that if they were allowed to organize the campus, the other parties must be permitted to come also. I asked him why the people of the state were taxing themselves to support the university, why it maintained libraries, laboratories, classrooms and an expert staff. I called his attention to the fact that if all the parties came, we should be unable to carry on the regular work of the university. I explained that we should be glad to have him send a representative of his party at a time agreed upon to speak to those who wished to hear him and that a similar privilege would be given the other parties, but that under no circumstances would we permit the campus to be organized for a political party and the university thus diverted from its regular work.

Sometimes it is a church or a denomination rather than a political party that inaugurates a youth movement in your community. I have known two such, where the motives were ostensibly to promulgate Christian doctrines but were really to get joiners for the church. I know of a youth movement started by a civic and commerce association where the motive was to secure large gifts from well-to-do citizens for the Christian Associations by telling them pathetic stories of the plight of youth. Not long ago I received a communication from one of the leading weekly magazines inviting me to assist in organizing a student forum on current problems to which the magazine would supply the materials for discussion—obviously the proposal was designed to increase sub-

scriptions. No doubt you have all been asked to help organize "The Sifters," to foster among college students a clearer understanding of our tax problems, but not one of you knows who "The Sifters" are or what they propose to do.

I have found one organization—The American Youth Council—that seems more laudatory to me than the others. It is built around a program designed to assist young people in holding and improving their employability and in securing satisfactory employment. It proposes programs of vocational guidance, of re-training, and of citizenship instruction. In the area in which it is at work it has registered 10,000 young people, has contacted 2,000 employers, is conducting an occupational placement service, and is providing re-training where necessary. Apparently it is dominated by no motive other than the welfare of the young people it is trying to serve.

The organizations that have been most active and have made the greatest inroads in student circles are the ones that lean to the left. The two leaders are the Student League for Industrial Democracy and the National Student League. They are descendants of the Intercollegiate Socialist Society of thirty years ago, and they are now both affiliated with the American Student Union. Student communist leaders were responsible for the establishment of the National Student League. The Student League for Industrial Democracy and the National Student League are of the opinion that there is no hope in either of the old political parties; they maintain that capitalism has failed, and that there must be a realignment of social forces in a collectivistic society. They are opposed to war in all forms, to military training in colleges, and to racial discrimination. They have prepared an act to be submitted to Congress which provides that students shall be paid not less than \$25 per month while attending college.

It was these groups that staged the "peace strike" on April 12 last spring and again on November 8 this fall. The instructions which the student groups receive from their headquarters tell them what to do and how to do it. They are advised to work independently of other groups, to engage

their own speakers, and to listen to no appeals for cooperation with other student groups or with the administration. When the representatives called at my office last April they were invited to join with other student groups and with the administration in arranging for a truly representative meeting; the invitation was declined. They were told that the administration would be willing to invite Mr. Newton D. Baker to speak on peace at a general university convocation; I was told that they would picket him if he came. It was suggested that the President would speak, but they said they didn't want him. They said they would be satisfied only if the university were dismissed at eleven o'clock and they were allowed to stage their own affair. It became clear that they were not interested in peace, but only in a demonstration. Consequently the university was not dismissed and no classrooms were available for them.

Sympathize as one may with some of the purposes of these groups, one cannot justify their defiance of the welfare of the university, their unwillingness to join with others in promoting a common cause, nor their subservience to the dictates of an outside organization. Such demonstrations as were contemplated and held in some places are not proper means of inculcating knowledge or for instilling ideals in reference to peace or any other similar subject. In fact, they are as inimical to the welfare of a university as are the instrumentalities devised by Mr. William Randolph Hearst and Mussolini for introducing into the schools pro-war and fascist propaganda. Whenever the schools of America lose their entity and become the breeding grounds for the spread of propaganda and the proselyting of members of non-academic institutions, whether born on foreign or American soil, the schools will no longer be the hope of democracy. If they lose their freedom to review and appraise every political philosophy, it will be because they themselves have abused the privileges of freedom or because they were too spineless to oppose the inroads of self-seeking organizations.

Thus far in this discussion I have referred only to the sins

of non-governmental organizations; my paper would be incomplete if I failed to suggest that the government must guard against committing the same sins. The government has tried to help the young people of this country; it has built schoolhouses, maintained schools, paid teachers in many districts, provided subsidies for college and high school students, and established C.C.C. camps. The Federal program has been essentially for relief purposes, and therein lies certain grave dangers. One of these is the increasing control of the Federal Government over the schools. Weight is lent to this opinion by the fact that what purports to be a federal commissionership of education, independent of the existing educational agencies, has been set up in each state. This Federal commissioner, known as the director of the National Youth Administration, has control over adult education and the education of the unemployed in each of the states. Through his office you obtain funds for the work-relief of college students and for high school students on relief.

It would be extremely unfortunate if the impression gained ground that the Federal Government was really trying to control education in this country. Such a move would violate every tradition we have with regard to education. In the long run it would mean only one thing, the domination of education in favor of the ruling political philosophy. Wherever such a conception has taken root and spread, whether in Russia or Italy, it has meant the loss of personal freedom and the domination of the individual by the state. It is difficult to regain liberty once it is sacrificed. Liberty, when lost, means the enslavement of the mind. In America we have generated our loyalties from below rather than imposed them from above. And we should still hold, I believe, with the tenacity of the pioneers to the values of local independence, or otherwise we shall be welding chains for the future.

I do not say that the Federal Government wishes to control education. I am only pointing out the dangers that inhere in the situation. Everyone appreciates that the government has been compelled to try many new things in recent years. It

is to be hoped, however, that new and more constructive solutions will soon be found for many of its problems, including that of providing relief for youth. Relief, if long continued, will create chronic dependency and an undermining of self-confidence. Distress and lack of opportunity break down respect for parents, a loss of family status creates feelings of inferiority, and both combined make youth susceptible to revolutionary ideas. Relief postpones; it solves no problems. When men sell their liberty for bread, and youth are content to live on doles, when millions become supplicants, then the demagogue has a propitious time and a fertile field in which to ply his nefarious trade. To the extent that young people can obtain the good things of life without work, we shall weaken their moral character and develop a spirit of helplessness in them.

Everyone of us knows that many families able to get along without it are asking for relief, that jobs are being turned down by young people because the pay is not enough, that increasing rather than decreasing numbers of students are asking for work-relief. These are ominous signs. The time has come when we need to take an inventory of the situation and see if we can't devise a more constructive program.

I have a cottage in northern Minnesota where I have spent the last fifteen summers. This past summer I became interested in improving a piece of highway. When I tried to interest the township board in it, I found that there was no money in the road fund. I asked the chairman of the board if some farmers in the township had not been on relief this last year. He said that there were some, that they had received \$3,000 worth of feed for their stock, agreeing to work it out on the highway. "Up to date," he said, "we have been able to get only one-half day's work out of them." Then facing me, he said, "Mr. Coffman, I don't think that it was to the best interests of these farmers that they got this relief. We wouldn't have allowed any farmer or any farmer's stock to have starved. People here all know the condition of each other and for years we have taken care of our needy citizens.

If these farmers had gotten help from us, they would have worked it out, but so long as they think their help comes from a government a thousand miles away, they have no sense of community responsibility." Illustrations of the need for a more universal application of this conception of community responsibility could be multiplied without end. But the devastating effects of the breakdown of a sense of community responsibility upon the community itself and upon the millions who have become the unwilling victims of the situation, will not be seen for years to come.

I know of one state where the director of education for unemployed youth is trying to locate unemployed youngsters on farms, where the junior civic and commerce associations are conducting a survey of possible jobs, where the women of a number of communities have organized schools for the training of maids, where the whole program is being carried on in a manner which seems to assure success without the spending of any, or hardly any, money. It is succeeding because the people are becoming aroused to a sense of community responsibility.

Two years ago I urged the government to provide work-relief for college students. At that time 6,000 prospective University of Minnesota students applied for this relief; last year, 3,000; this year, 5,500. Everyone knows that conditions are better than they were a year ago. Two years ago we had no problems with this group; now they are arising with increasing frequency. One thing is becoming clearer with time, that is, that the work and life of universities will be menaced if they become permanent labor employment camps.

The danger one faces in engaging in a discussion of this nature is that he will appear reactionary to a fault, or that what he is saying will be interpreted as having political significance. I am not concerned so much with these criticisms as I am with what is best for youth and with the preservation of our schools and colleges as genuine educational institutions. I am convinced that not one of the propagandizing societies and organizations now seeking to use the schools has a genuine

educational program. And the government has none. There has been no effort yet to outline an educational program adapted to the varying needs of the youth of the country.

Nearly every attempt to exploit youth means an exploitation of the schools. Every movement designed to indoctrinate youth is contrary to the democratic principles of the founding fathers of the school system of our country; every such movement menaces the freedom of learning and of teaching. For any educational institution to fall prey to any one of these movements, spells its intellectual death. No university will hesitate to study every movement that presumes to contribute to human progress, but it will not lead a march in favor of any of them.

The future of our schools, as well as democracy itself is imperiled by the agencies, both private and public, who, even though their motives may be laudable enough, nevertheless indoctrinate students with their special creeds and philosophies or create a feeling of dependence on the part of the individual and a loss of responsibility on the part of the community by their relief programs. If youth are not to be exploited unduly by special leaders in the name of politics, religion, or some social or political theory; if they are not to be encouraged in their distress; then ways must be found to make them self-reliant and independent in thought and action. This can be done best where communities and states undertake to provide for their young people without charity and where schools teach students to weigh and appraise every suggestion, every program, every theory proposed for human progress, rather than to make them converts of some movement.

L. D. COFFMAN,
President, University of Minnesota.

College Finance*

I DO NOT need to try to emphasize the importance of finance in college and university administration. Without financial resources, no facilities can be provided and no staff can be maintained. Consequently, without finance, no program of instruction or research can be carried out. Within its scope, the hopes and achievements in every college, both institutional and personal, are embraced. For these reasons, though it is purely incidental to the major purposes and undertakings of an institution, it is nevertheless inseparably bound to them.

There are many underlying philosophies which are vital to the financial program. Without sound principles, the program conceivably may lead an institution far astray. But, in addition to these general principles, there are some tools and instruments which are of vital significance in the carrying on of a financial program. Some of these agencies are:

- (a) The budget
- (b) The accounting system
- (c) The financial reports

These mechanisms constitute a continuous cycle through which the financial program is set up and expresses itself. As mechanical details they are of little consequence, but in their relation to the carrying out of the purposes of the financial plan they are of the utmost consequence and no governing board or institutional executive can safely try to get along without them or safely content themselves with any quality in them other than the best.

A few years ago the associations of business officers, together with other organizations, came to the realization that the financial reports of colleges and universities needed greater uniformity. As a result, the National Committee on Standard Reports was organized for the purpose of bringing

* A paper read before a regional meeting of the Association of American Colleges, Atlanta, Ga., November 1, 1935.

about some general uniformity through the determination of fundamental principles which should be followed in institutional accounting and reporting and securing the adoption of those principles. The Committee found, upon investigation, that much disorder and ineffectiveness existed in college accounting, and that this fact contributed to the lack of unity in financial statistics then prevalent. It also contributed materially to a lack of suitable information on the part of institutional boards and administrators.

The work of the committee has been completed through the publication by the University of Chicago Press of the volume entitled "Financial Reports for Colleges and Universities," of which copies have been supplied to all institutions.

This report has found wide favor and already in the brief time since the Committee's program was begun a material improvement has taken place in college accounts, reports and financial statistics, and the recommendations of the Committee have been extensively accepted. I should like now to emphasize some of the fundamental principles which are recognized in the Committee's proposals. We are not here concerned with details of bookkeeping, however important they are from the standpoint of producing useful and reliable information. We shall confine ourselves only to a few fundamentals of financial procedure which a suitable system of accounts and reports will aid in carrying into effect.

It is first necessary for us to recognize the varied obligations which rest upon a college, obligations which are more extended than those of a commercial concern. A college is an owner, an operator and a trustee, all in one. It has outright ownership of certain funds and physical properties. It is responsible for the operation of certain of these properties. In addition it is the trustee of many and various funds, some of which are expendable and some of which must be kept permanently intact, the income only to be used.

These obligations result in splitting up college finances into "compartments," each of which is distinct and separate unto itself. These compartments are spoken of as *funds*, each of

which consists of cash or other resources set aside for the purpose of carrying on certain activities or attaining certain objects in accordance with some specific limitation. Each fund is a distinct financial entity and the restrictions applying to it, both as to its kind and as to its purpose, must be strictly observed.

The different types of funds that are more or less common in various institutions are:

(a) *Endowment funds*, or funds which must be kept inviolate as to principal, the income alone to be used.

(b) *Plant funds*, or funds which have been or are to be invested in additions to the Physical Plant of the institution.

(c) *Loan funds*, or funds of which the principal may be loaned to students.

(d) *Current funds*, or funds which are expendable for carrying on the institution's activities.

Other funds which are less common but frequently found are:

(e) *annuity funds* and (f) *funds of others or agency funds*, which are in the hands of the institution for safekeeping.

Each of these types of funds has certain obligations and requirements peculiar to it which affect the methods of its management and the character of its records. The presence of these different types of funds necessitates the subdividing of the money or other assets of the institution as well as its accounts and reports into these different groups, the autonomy of each of which must be kept clearly distinct. The first of these sections to which I will refer, and in many respects for a private college the most important one, is the *endowment* section. The college and university world is under perpetual debt to Dr. Trevor Arnett, first, for indicating the true definition of endowment, and, second, for advancing so clearly and comprehensively the correct principles of endowment management. There has been little for the National Committee to do with respect to this subject but to reiterate and expand some of the fundamentals which he laid down.

The first important thing to recognize is that endowment means *permanence of principal*. This means that the princi-

pal sum is to be invested and kept intact. A fund is not an endowment fund unless such a restriction has been applied to it by an outside party or agency to which restriction the governing board is bound. Other funds are sometimes placed by the institution in the endowment group. Such funds are not endowment in the strict sense of the word and should be designated as funds "temporarily functioning as endowment." The time may come when the institution may wish to withdraw those funds for other uses, which it may do with such funds but may not do with endowment funds.

The obligations on trustees for the management of endowment funds are most definite in character. Endowment funds have two elements: (a) principal, (b) income. It is important that the principal be kept intact as only in this way can the object of the endowment be permanently carried out. It is equally important that the income be kept as large as possible in order that the benefits of the fund may be made more extensive. It is always a temptation to take risks with principal for the benefit of the income account, but it is a temptation that it is rarely if ever wise to yield to. That temptation is perhaps greater at the present time than at any time in the past and the greatest of caution is needed that the future needs of the fund are not jeopardized for present urgencies.

A certain board found itself not long ago faced with the problem of determining a policy which should guide it through this difficult period. It formulated such a policy for its own guidance and I had the good fortune to be favored with the information concerning it. I am glad now to present several points included in that policy which I believe constitute a safe program for any institution:

1. Since endowment funds are established primarily for the purpose of producing income and if income is not secured the purpose of the fund cannot be carried out, it is an obligation upon trustees to invest all such funds as soon as practicable after money belonging to them becomes available for investment.

2. A conservative policy of investment should dominate all actions, having regard not only for the importance of regular and continuous income but for the permanent safety of the principal.

3. It should be recognized that it is not possible to secure a uniform return of investments made at different times, since in some periods rates of return on suitable investments will be small and at other periods they will be on a high level. Since income is an important feature of such funds, investments made in a period of low interest rates should be made at as short a term as practicable, while at periods of high interest rates, longer term maturities should be selected.

4. Since one of the major purposes of endowment funds is to produce income, investments should ordinarily be confined to securities or other property of income-producing character.

5. Losses incurred in the investment of endowment funds not resulting from mismanagement on the part of trustees are a proper charge against the principal of such funds. Trustees are not under obligation to recoup losses and no speculative venture should be undertaken which has that for its purpose.

6. When fundamental conditions relating to any security become such that the interest of the fund is best conserved by disposing of that security, reinvestment should always be made in items of a high quality and not in items of a grade similar to that which has been disposed of, even though such items may be available which appear to have better prospects than those formerly held.

We have not seen in many years as difficult a time for securing suitable investments of income-producing funds as the present. The period is one in which there is much inducement to depart from proven principles of investment in an effort to increase income. Such risks may be undertaken by individuals, but trustees of endowment funds should be most cautious about following a similar plan. The permanence of the fund and

its protection from depletion are quite as important as the increase in the present income of the fund.

Another type of fund presenting problems of investment is the *fund subject to an annuity agreement*. We all know that a good deal of unwise ventures have been made in this field in the effort to increase gifts to institutions. Precaution should be exercised in the acceptance of funds of this kind to make sure that they will not constitute an undue burden on the institution exceeding the benefits which come from them. Every fund should carry its own burden. It should not be expended for the purpose of the gift until the obligations of the annuity agreement are completed. If its obligations exceed the earnings from the principal sum, the excess should be deducted from that sum and only the net amount applied to the purpose of the gift.

In the investment of such funds it is prudence to carry them in a separate portfolio. The reason for such a procedure is that these funds often differ in nature from endowment funds. In many cases they are to be expended for current purposes or for additions to plant. When they become available for such purposes it is necessary to liquidate the securities that relate to them. For that reason such securities must be of a liquid character in contrast to the permanent investment quality of securities in the endowment group. If annuity funds are pooled with endowment funds for investment purposes it will mean that when annuity funds mature the most liquid securities and those having the highest present value will be disposed of in order to carry out the purpose of the annuity. The result of such a procedure may mean the gradual lowering of the quality of the investment portfolio. The safe way in most cases is to maintain two separate groups of investments. In any event, annuity funds should be set out clearly in the accounts and in all financial reports and those funds should be classified to show whether they are for endowment, for plant, for current restricted purposes, or are unrestricted.

Another important group of funds is represented by those

which are designated for or are invested in the *physical plant* of the institution. The greater part of such funds arises from specific gifts, bequests or public appropriations. The accounting for them is carried out in two stages:

1. The stage in which they are on hand in cash or available to be expended for the project to which they relate. In this stage they are an expendable fund and should be so accounted for.

2. The stage after they have been expended for the plant addition to which they relate after which they are accounted for in the form of plant assets. The merging of cash and other liquid assets with plant in the accounts and financial statements is not recommended. 3

A good many additions to the permanent plant of the institution, using the term plant in a broad sense to include land, buildings and equipment, are made out of current funds. The accounting for such additions is frequently inadequate. Expenditures of this kind made through the annual budget are frequently charged off as operating expense and no additions are made to plant assets in recognition of them. One of the purposes of carrying plant assets on the books of an educational institution is to provide a proper control over the physical property of the institution. There should be an inventory of its equipment as well as of its land and buildings and this inventory should be kept up to date. The best method of control over this inventory is to see that all additions to physical assets are entered in the general accounts.

The basis of valuation of property of this kind is also a matter of some importance. It is the practice in commercial enterprises to enter a regular depreciation as a current cost and thus follow as nearly as possible the present value of fixed property. This is for accurate determination of profit or loss, and for use in securing credit. No similar reasons appear in college and university accounting and it is believed that a figure of original investment in such property is the most serviceable. Consequently the National Committee has recommended that the accounts of fixed property be carried on the basis of origi-

nal cost as far as practicable or in the case of gifts at actual or appraised value if ascertainable and that this figure be carried until such a time as the property is disposed of.

It is highly desirable of course, especially in certain kinds of property such as power plant, residence halls, and other service property, to set aside out of each year's income an amount for renewals and replacements of that property. Any such provisions made would obviously be included in the annual budget and the necessary cash funds set aside for this purpose. Otherwise it is not felt that depreciation should be entered in the accounts as a current operating expense. If depreciation is entered in the accounts or in the annual reports but is not provided for in the budget, it means that the accounts and reports differ from the budget and considerable confusion results. Public accountants, in making audit reports, often overlook the importance of this coordination and thereby reduce the usefulness of their reports by including items which are common in commercial audits but of little or no consequence in college finance.

Endowment funds should not be invested in educational property of a non-income producing type. Obviously, the whole purpose of an endowment fund is defeated if this is done since this property cannot be depended upon to produce an income. Whether endowment funds should be invested in income-producing property such as residence halls and other enterprises is open to serious question. You are doubtless familiar with the expression of opinion of the General Education Board on this subject. The reason back of that opinion as I see it is that it is unwise business practice for the same parties to be trustees of a capital fund and also managers of the property in which that fund is invested.

On the other hand it must be recognized that some institutions have made a notable success of investing their own permanent funds in their own properties. It can only be said, therefore, that such investments should be made only after the most careful consideration and that, when made, the accounts should show clearly that the investments are in insti-

tutional property and the finances of such property should be carried out on the same basis that would be expected in similar property owned by others and under mortgage; namely, that an adequate program of maintenance should be carried out and suitable reserves for depreciation and replacement set aside regularly out of income before determining the income for purposes of the endowment investment.

Another group of funds which has come into increased importance in college and university affairs in recent years is the *loan fund* group. Here are included all funds, the principal of which is used for making loans to students or others, which loans are made with the expectation of being repaid. There has been considerable looseness in the handling of such funds in the past. Although the disbursements from them were understood to be in the form of loans, the business arrangements were often inadequate and the students have looked upon the amounts advanced to them as not requiring repayment. The methods followed in the collection of these loans have also been inadequate with the result that the amount of delinquency in many cases is abnormally large. The accounting has also been incomplete. Loans made were in many cases considered as expenditures and loans collected were considered as income. The notes were not set up in the accounts as assets of the loan funds so that the control over these notes was anything but complete.

The National Committee, after studying this matter, felt that loan funds constitute in the majority of cases a sufficiently distinct and different form of fund to justify a separate group of accounts. The accounts of such funds should include any unloaned cash, any securities representing temporary investments of unloaned money, and the outstanding notes. There would seem to be no reason for setting up a reserve for uncollectible notes, since if any notes proved to be uncollectible they should be charged off from the fund out of which the loans were made and the principal of that fund merely reduced. If, in accordance with the most usual practice, interest is charged on loans and that interest is added to the

loan funds, the amount thereof is usually more than sufficient to cover losses in a well organized plan of collection.

There yet remains the funds relating to the *current operations* of the institution. These funds are of two types: (a) those which are restricted as to use and which consist of gifts for specific purposes or income on restricted endowments; (b) those which are unrestricted, including the general income of the institution. Restricted current funds should be clearly ear-marked and the cash or other assets relating to them accounted for distinctly from other cash. A grave mistake is made by merging restricted current funds with general funds. The result is that cash belonging to restricted funds is used for general institutional purposes and, when it is needed for the purposes of the special funds, possibly it cannot be replaced.

The general fund group constitutes the unrestricted funds of the institution from which the general budget may be built. It should contain only those resources which are reasonably certain of realization and which are realizable in cash.

As already indicated, the first and in many respects the most important element of the financial picture is the budget. The budget should constitute a complete financial program for the year covered by it. It should show the sources of income and the authorizations of expenditure. Its arrangement should correspond to the arrangement of the accounts and reports, and vice versa. It is perfectly possible to set up a budget for an institution in substantially the same form and arrangement as that followed in the forms of reports recommended by the National Committee. The Committee's book indicates how this may be done. The advantage of such a plan is that the accounts and the reports can all be used in relation to each other and each will be of service in the preparation of the others. What has often happened in the past, namely, that the budget has been set up in the President's office, more or less independent of the finance office, and the finance office has kept its accounts according to its own ideas of classification, and then outside auditors have come along

and made up a report with an entirely new plan of classification. The result is that the three important documents and records of the institution are all different from the others and cannot be used in relation to each other.

This entire session could be devoted to a discussion of policies relating to the budget. We all know the ideals that are striven for in this regard: ample provision for plant maintenance and replacement; ample provision for equipment replacements and additions; ample provision for additions to library; a reasonable scale of salaries; and after all these things are done—a balanced budget. The actual carrying out of these policies depends so much on local conditions and on circumstances not always within our control that it is difficult or impossible to lay down fixed and fast rules.

Nevertheless, all who are concerned with the financing of an educational enterprise should strive for a balanced budget. By that we mean that the income realizable with reasonable certainty in cash during a fiscal period equals or exceeds the expenditures or commitments for salaries and other expense of current operation, for the maintenance of the plant of the institution on such a basis as to avoid undue deterioration, and for essential replacements of and additions to books and equipment. Unless this ideal is accomplished, the college cannot consider itself on safe ground financially. Running undue risks with respect to income and making commitments without reasonable certainty of income to cover them is unwise. Undue limiting of plant maintenance with the result that large outlays for accumulated necessities will appear at a later date is likely to prove "penny wise and pound foolish."

Bookkeeping is not an end in itself. It is an incident in the production of information on which decisions of vital importance must be based. For this reason, it is essential that the books be kept so as to record facts correctly and to produce reports promptly and accurately. Unless such reports are compiled from time to time there is no way of knowing how actual results are comparing with the budget estimates. These reports should show the extent to which income is being real-

ized and the amount of expenditures on each budget item. They should also show estimates for the remainder of the fiscal period. They should be arranged in the same general order as the budget so that the two can be readily compared with each other.

One further link in the financial system consists of financial statistics which are compiled by various central agencies. In the past there has been little or no uniformity in the requests from different agencies. It is now possible to work toward a standard plan of financial statistics. The classifications recommended by the National Committee form a basis for a high degree of uniformity in this respect. Evidence of progress in this direction is shown by these two examples, the form of report most recently issued by the United States Office of Education and the form of report recently adopted by the New York State Department of Education. Both of these forms follow the National Committee classifications very closely and are very similar to each other. The ideal that would seem most desirable in this respect would be that statistics from all institutions in each state be collected by the State Department of Education and in such form that it would meet the needs of the various church boards and other agencies.

The National Committee plan of accounting and reporting meets these needs better than any plan yet devised. Furthermore, it is equally sound from the standpoint of accountancy as well as from the standpoint of educational management. It gives insurance that the integrities of various funds will be protected and proper financial principles followed. It represents the composite and considered judgment of a great many people. For that reason it is superior to the ideas of any one individual and is more widely suitable for use. The extent to which it has already been accepted is evidence of its soundness and its adaptability. It has been accepted by representative large endowed universities, by small endowed institutions, by state universities, large and small, and by institutions which have both a public and private character. It has been accepted by a number of states for application to all their state-sup-

orted institutions, and by various boards and accrediting agencies, including the North Central Association. As already indicated, it has been accepted by the United States Office of Education and by the New York State Department of Education as the basis for statistical report forms required by them. It has thus established its adaptability to every variety of condition.

Colleges and universities have been notably autonomous in type. Some kinds of institutions have been brought under a certain amount of supervision by outside bodies and agencies. In general, however, this supervision has not been of such a nature as to destroy the individuality of procedure or policy. Such uniformity and standardization as has been desired has been accomplished through cooperative effort through such associations as the one meeting today and other similar groups.

There can be little question but that progress through cooperation is greatly to be preferred to regimentation and centralized direction in education. This applies not only to educational processes and programs but to business procedure as well. The work of the National Committee toward better standards for accounting and reporting is a cooperative movement of the institutions themselves through their duly selected representatives. It is not a program being forced on the institutions by some outside agency. It is not a program of governmental domination, for which we may be duly thankful.

As with any project of this kind, the National Committee plans have not been accepted universally. There still remain a few who have not chosen to follow them. This fact is due in most instances, either to local conditions in which adjustments may be made before the plan can be applied, or to the personal prejudices of certain institutional officers. These facts do not tear down the quality of the report or its ultimate usefulness. It is not too much to predict that the report will stand for a long time to come as the standard of procedure and achievement in this field. The largest value will come from its general acceptance and application.

College and university executives require and are entitled to regular and adequate information about the finances of your institutions. Financial or business officers are responsible for supplying that information. There is no longer any reason why they cannot meet this obligation in a satisfactory manner, since the plan of accounting and reporting made available by the National Committee constitutes a model which they can follow with assurance of satisfactory results. Boards and presidents have a right to expect such results and there is now no reason why they cannot demand them.

Good accounting and reporting will not make an institution's finances sound, but they will be of material aid in bringing about the best possible financial management and will be of infinite assistance to executives and boards in dealing with the intricate problems of college and university finance.

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The Scope and Aim of a Personnel Program

SINCE the scope of a program of any sort must be determined by its aim, or aims, I shall deal first and foremost with the aims of educational personnel work at the college and university level. These aims grow out of the general aims of American educational tradition, in accord with which the college is responsible for furnishing service to its students over and above classroom instruction. Arm-chair thinkers day-dream of a release from this responsibility in order that the faculty members may receive the total income of the institution for salaries and supplies and give in return scholarly lectures and occasional advice relative to their field of study. However, the student gets sick, has no money, goes slack because of vocational anxieties, encounters poor study conditions, becomes dissipated by unwholesome recreations, rebels against misunderstood university regulations, registers for the wrong level of French instruction, is harassed by debt, finds the moral and religious universe of his childhood too rudely shattered, or is home-sick or love-sick; and any of these may entirely negate the best of instruction. The American college has been sufficiently practical-minded to realize that instruction itself demands allied services to the student. The student cannot be sent to college without bringing his body, emotional status, and moral make-up with him. Nor can his mind function without regard to the status of other aspects of his development. The practical wisdom of the American tradition seems incontrovertible. All theory of release from it seems to the writer to be 100 per cent wishful thinking on the part of the faculty. And this conclusion is based not on the interests of parents, students, alumni, and trustees, but solely upon consideration of the teaching effectiveness of the institution—the interest of the faculty itself.

Until approximately 1900 the policy described above ex-

pressed itself mainly in two directions; namely, on the one hand many faculty meetings, faculty committee meetings, and faculty-student interviews devoted to the problems listed above; and, on the other hand, the gradual absorption of college presidents in such problems. Then, as the colleges grew in size and the faculty became increasingly unwilling to spend time on such matters not directly germane to their teaching and research, there have arisen additional administrative provisions, viz., academic deans, registrars, deans of men and women, student advisers, student associations (religious and secular), guidance bureaus, infirmaries and health officers, psychological consultants, psychiatric experts, etc.

In the beginning such administrative duties as dealt mainly with students were primarily regulatory and disciplinary. Gradually they became conceived of as prophylactic and morale building. In addition, they have come to be considered definitely and directly educational as dealing with the total needs of the total student personality. Finally, they have come to be thought of as mediating between general curricula or regulations on the one hand and the limitless individualities of motives, needs, and abilities on the other hand. In all this development, however, there has been no element of the program that could not *theoretically* justify itself in terms of service to the teaching faculty through release of the teaching staff from duties they were least interested in performing, and through delivering the student to the classroom in the optimum condition for profiting by instruction.

The foregoing running start from history is taken in order to afford for our discussion of aims and scope a standard for validating such aims. This standard would probably be acceptable to all if we define student personnel service as all non-instructional service to students which demonstrably increases the effectiveness of instruction. When the personnel service introduces a placement test in French which reduces student mortality 25 per cent, such increased effectiveness is immediately obvious. More adequate admissions programs or sanitary inspection of student residences may have less obvious

but equally real value to the instructional objectives of the institution.

There is one point in this historical summary that has been omitted—namely, the introduction of the term “personnel.” Probably this term was not used in college circles until after 1917. The term has been used in many senses since that date. H. D. Kitson published in 1917 a monograph supplement of the *Psychological Review*, entitled “The Scientific Study of the College Student.” The application of social case work methods, psychological techniques, and more refined statistical methods of handling data on large groups began to demand a new term for a new administrative point of view.

L. B. Hopkins, in a study of “Personnel Procedure in Education” (October, 1926, EDUCATIONAL RECORD), listed the functions of personnel work as including: Selective process, Freshman Week, psychological tests, placement tests, faculty advisers, other organized student interviews, health service, mental hygiene service, vocational information, employment and placement, discipline, curriculum improvement, selection of instructors, improvement of teaching methods, objective examinations, research concerning teaching, research concerning the individual, coordination of personnel services in the college and the whole institution, and coordination of outside agencies affecting students.

The general aim embracing the functions listed above Hopkins presented as follows:

The concept I have had before me has been that it means work having to do specifically with the individual. In education one might question how this differs from the concept of education itself. I do not assume that it does differ. However, other factors constantly force themselves on the minds of those responsible for administration. In industry, it would be fair to say that management must concern itself with raw materials and output, with buildings and equipment, and with innumerable other items. So also in education, the administration is beset with many serious problems and certain of these problems become so acute at times that there is danger that they may be met and solved without sufficient considera-

tion for their ultimate effect upon the individual student. One of the functions, therefore, of personnel administration in education is to bring to bear upon any educational problem the point of view which concerns itself primarily with the individual. Thus, in this particular as in all others, personnel work should remain consistent with the theory and purpose of education by tending constantly to emphasize the problem that underlies all other problems of education; namely, how the institution may best serve the individual.

Esther Lloyd-Jones, in 1929, in her book, "Student Personnel Work at Northwestern," elaborated the position that educational personnel was a major division of university work equal in importance and unity to teaching and finance.

R. C. Clothier, as Chairman of a Committee on Policy and Procedures and Standards of the American College Personnel Association, included in his report in 1931 the following principles of educational personnel work:

1. Every student differs from every other student in aptitudes, inherited or acquired. . . . The college must know these qualifications so far as it is possible to do so and must utilize that knowledge in planning his college course, both within and without the curriculum. . . .
2. Every agency within the college should consider these differences between students. . . .
3. The Personnel Department, under the Personnel Director, is responsible for the development of this point of view throughout the organization. . . .
4. Each college should provide adequate facilities—in terms both of procedures and equipment—for the maintenance of harmonious and effective relationships among students, faculty members, and administrative officials. . . .

M. E. Townsend, in 1932, studying "The Administration of Student Personnel Services in Teacher Training Institutions of the United States," describes the function of personnel as follows:

Personnel is a new term. On the other hand, the province of personnel is as old as the establishment of society itself. As the name itself indicates, personnel is concerned with those

inquiries about and those relationships toward persons—as persons—carried on primarily for the purpose of insuring human effectiveness in productive work. It is, of course, interested in the skills, informations, and techniques already mentioned, but essentially with a view to establishing proper physical, mental, emotional, social, and ethical readiness within the human being who is to do the work, to the end that these factors may serve the worker in a positive, constructive manner in the pursuit of the activity. The personality pattern of the individual at work is its legitimate field.

President Townsend calls attention to the fact that the term “personnel” is so recent that with one unimportant exception it does not appear in the *Readers Guide* until the volume of 1919-1921. He says further:

. . . Just what forces combined to change the emphasis in industry and in all fields of vocation from the task to be done to the doer of the task, is not very difficult to discern. Until the first decade of the twentieth century psychology—one of the basic instruments of investigation in this field—was practically unprepared for the task. The rise of the testing movement, largely experimental and academic at first, provided practical means at hand for the further refinement of the techniques of research in the field of personality. And upon the accumulation of authentic and usable information about personality itself all of personnel as a scientific procedure depends. That one stands at present in possession of anything like a fully competent body of predictive or diagnostic procedures in this field is far from the truth. But important beginnings have undoubtedly been made. . . The interview, the case history, tests, measures of relationship between significant personal conditioners, the survey, the controlled experiment are familiar procedures, whether the personnel researcher is inquiring within the fields of the skilled trades, engineering, medicine, civil service, or teaching. The fact that personal factors affecting accomplishment are relatively more easily discernible, and bear a more direct relationship to output, in terms of goods produced or goods sold, has probably resulted in more investigation being carried forward within the general field of commerce and industry than within those fields of service where results are more intangible, and more complicated by delay of fruition, or by the operation of extraneous factors, as is the case with the professions.

Although "personnel" did not appear in the *Readers Guide* before 1919, W. H. Cowley, of Ohio State University, was able in 1932 to issue a volume entitled "The Personnel Bibliographical Index." To prepare the Index it was necessary to read 4,902 books, articles, monographs, and pamphlets, of which 2,183 are annotated and indexed in the resulting volume.

Dr. Cowley, who had just previously devoted considerable time to the development of techniques for making surveys of personnel work in universities, bases his volume upon five assumptions concerning the aims and scope. In abbreviated form these assumptions are as follows:

1. Student personnel administration is not analogous to industrial personnel administration. The accepted function of industry, perhaps incorrectly, is the production and the sale of goods and services. Individuals are contributors merely. In education, however, the individual takes the center of the stage. His training and development are the *raison d'être* of the college. All units of the college staff make their contribution toward the common end. The Personnel Division is one of these units, performing its specialized services toward the education of the student.

2. Personnel administration is one of four main divisions of university administration. As educators become interested in and cognizant of the development of management techniques in industry, they are recognizing that college or university administration may be classified functionally in at least four divisions: operational (or business) administration, instructional administration, research administration, and personnel administration.

3. Recognizing student personnel administration as a major functional division of university administration, we may define it as the administration of all university-student relationships *aside from formal instruction*. . . . These include counseling of various types, medical attention, supervision of extra-curricular activities, administration of admissions, of intelligence-testing programs, of housing, and so forth. Moreover, these functions group themselves together as thoroughly different from formal instruction, and as a group they are generally thought of as personnel services.

4. Ideally, every instructor is essentially a personnel officer, but he must depend upon specialists to perform certain per-

sonnel services for which he is untrained. In the best of possible colleges every instructor would be individually interested in the students under his direction, but he cannot treat them when they are ill, nor counsel them concerning complex vocational problems, nor administer loans and scholarships, nor direct intelligence-testing programs, nor undertake responsibility for a number of other personnel services.

5. Student personnel administration divides itself logically into individualized services, administrative services, personnel research, and cooperative research services.

(a) Individualized personnel services include educational counseling, vocational counseling, personal adjustment counseling (namely, social counseling, psychological counseling, and religious counseling), discipline, placement both part-time and permanent, health counseling, and loans and scholarships. In all of these relationships the individual student has the center of the stage. The contact between the personnel officer and the student is always a face-to-face and one-to-one contact. It is seldom a group relationship. One may properly, therefore, group these functions together and label them individualized personnel services.

(b) Administrative personnel services include admissions, freshman orientation, intelligence-testing programs, supervision of extra-curricular activities, housing, personnel record-keeping, and supervision of social life. It may frequently happen, of course, that these administrative personnel services may also be individualized personnel services, but in general they are administered for groups of students rather than for individuals. They are, therefore, set apart from the individualized services because of their distinctive and more or less impersonal emphasis.

(c) Personnel research takes in all types of investigations of individualized and administrative personnel problems. The effective administration of both individualized personnel services and administrative personnel services requires continuous research in problems as diverse as they are numerous. No ideal personnel program can be conducted without research. The function is so important that it must be recognized as a major classification of personnel administration.

(d) Cooperative research services are those research services performed for departments of instruction. Although by definition a clear-cut distinction is made between instructional administration and personnel administration, it frequently happens, and very likely must continue to happen, that

the personnel organization conducts research for instructional departments in problems of two general types:

1. The measurement of students for sectioning on the basis of ability, for honors courses, for the discovery of gifted students, for the prediction of scholarship, and for similar instructional purposes.

2. The development of techniques for probation courses, remedial instruction, how-to-study course, orientation courses, and the like.

Not only has this item of "personnel" appeared in *Readers Guides*, indexes and research summaries, but it also has an important section of the Manual of Accrediting Procedures of the North Central Association (1934). The Accrediting Committee proposes to examine the adequacy of what it calls "Student Personnel Service," under which heading it does not include "Admission and Orientation of Students," but does include "Student Records," "Counselling Procedures," "Extra-curricular Activities," "Loans, Scholarships and Grants-of-Aid," "Health Service," "Housing and Boarding of Students," "Placement Service," "Student Discipline," and "Administrative Arrangements Whereby the Various Types of Student Personnel Service Are Effectively Coordinated." Under this latter heading the admission and registration of students is included in the group of functions to be effectively correlated.

I have called attention to these various statements just quoted in order to avoid settling down on any one point of view in regard to a movement still in its formative stages. I am willing, however, to record some convictions as to valuable trends within the movement. I am confident the following are clear gains and worthy of development at any institution:

1. The emphasis on the essentiality of certain services to students.

2. The grouping of these together to form a single general function calling for special staff with special qualifications, training, etc.

3. The realization of the existence of ultimate individual differences in student needs and aptitudes, and their radical importance for instruction and adjustment.

4. The adoption of scientific techniques in the study of individual problems and institutional processes.

5. The realization of the unity of student personality and the necessity of dealing with each student at each contact as a total person—an end in himself, and never a mere abstraction or a means to an end.

6. The necessity for continuous research and revision in the work of an educational institution instead of periodic and explosive re-planning, followed by periods of static and routine administration of unchanging plans.

Furthermore, I believe that this movement is thoroughly appropriate to the present nature of American civilization which is trying in all its institutions of government and business, as well as education, to substitute science for guess work, humanistic values for unrestricted institutionalism, and continuous development for cataclysmic alternations of repression and revolution. It is part and parcel of the unique effort to create a better relationship between individuals and institutions that is central in the American way of life.

FRANCIS F. BRADSHAW,
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In Appreciation of William T. Harris*

UP IN New England, and less than one hundred miles apart, are the birthplaces of three men who probably did more constructive pioneering in the development of American public schools as we know them today than any other men who could be mentioned. In this presence it is quite gratuitous for me to name them—the first, Horace Mann, born in Franklin, Massachusetts, in 1796; the second, Henry Barnard, born in Hartford, Connecticut, in 1811, and the third, William T. Harris, born in Killingly, Connecticut, in 1835, one hundred years ago September 10 of this year. For those who are school administrators, whether local, state, or national, as well as for all teachers in the American public schools and all students of education in America, these three names hold a primacy that cannot be matched. Their individual achievements have been so significant and far reaching that I am sure no commentator can hope to describe them satisfactorily either to his hearers or to himself. If this is true of Horace Mann and Henry Barnard, it is perhaps especially true of this intellectual giant, educational philosopher, versatile school administrator, and true benefactor of man—Dr. William T. Harris, whose memory we would honor today.

In the few minutes afforded me on this occasion I can do no more than bring into view fleeting glimpses of a few milestones in his notable career. William Torrey Harris was born in a typical New England farm home more than a mile from the nearest neighbor. Though his ancestry did not bring him wealth, it endowed him with a strong body, with mental gifts of the rarest quality, and with a cultural background for the favorable nourishment of these inborn gifts. His parents were

* A paper read at the dinner in honor of the 100th anniversary of the birth of Dr. William Torrey Harris, given at the Mayflower Hotel, Washington, D. C., December 9, 1935, by the United States Office of Education with the cooperation of the National Council of State Superintendents and Commissioners of Education.

William and Zilpah (Torrey) Harris. His early paternal ancestor was Thomas Harris, who landed at Salem with Roger Williams in 1630 and later settled in Providence. His paternal great-grandfather was a metaphysician as well as a physician and surgeon. His early maternal ancestor settled in Weymouth in 1640 and was chosen to serve on a committee to examine John Eliot's Bible. The two chief branches of this maternal line of ancestors included clergymen.

It was from such a background that William T. Harris emerged as a healthy, robust schoolboy attending successively a little country school in Connecticut, a grammar school in Providence, then academies at Woodstock, Connecticut, Worcester and Phillips-Andover, Massachusetts, and finally matriculated at Yale in 1854.

The intensity of his mental appetite came into view while a student at Andover and Yale. As was customary in the academies and colleges of those days, the formal study of languages occupied much of the student's time. While at Andover, however, Humbolt's *Cosmos* had come to his attention and immediately aroused his interest in natural science—an interest which could not long lie dormant. The offerings at Yale did not satisfy. "I began," said he, "to disparage the study of Latin and Greek as dead languages. Language itself was 'only an artificial product of the human mind.' I wished to know nature. This thought came to possess me more and more, until it finally overmastered me. About the middle of the junior year I withdrew from my connection with the college, full of dissatisfaction with its course of study, and impatient for the three 'moderns'—modern science, modern literature and modern history."

Evidently his power to weigh the relative values of different subjects of instruction was a rather gradual development, as he later came to appreciate that Latin and Greek not only offered an important key to an understanding of English but that the Greek and Roman cultures had provided important foundations for the aesthetic, scientific, political, and legal aspects of modern life.

It is with keen interest that we follow this young man whose hunger for the opportunity to learn of modern life and to grapple with modern problems was not to be satisfied by the curricular offerings at Yale in the 1850's. Yearnings for a more vital experience stirred within him, and he turned toward the developing West, arriving in St. Louis in 1857 where he began at once his educational career.

Before a year had passed he was elected secretary of the Missouri State Teachers Association at its first meeting, which by the way, was addressed by Horace Mann. The following year we find him taking a competitive examination for the principalship of a public elementary school in St. Louis. As you may surmise, this bespectacled youth came out at the top of the list. May I call your attention to a picture of the young school principal as drawn by Frank A. Fitzpatrick, one of the pupils in his school and later, himself, a school principal in St. Louis:

It was my good fortune to enter this school by transfer from another grammar school, and be assigned to the room over which he had charge. At this time Dr. Harris was full of nervous energy, and his every movement showed him to be an accomplished athlete. The school playground was equipped, thru his insistence and foresight, with the simple appliances of a gymnasium, and not infrequently at recess periods the young principal would fill our boyish hearts with enthusiasm by his feats of agility and strength on the trapeze, the horizontal bar, and the ladder. He was fond of all outdoor sports; I had occasion to see his accuracy with the rifle, and more than once note his skill and endurance as a swimmer. As a teacher, the young principal was particularly happy in history and grammar recitations. Tho a strict disciplinarian, he was exceedingly popular with his immediate pupils. He early manifested great interest in my reading, and allowed me to read many books from his own library. At this time I remember clearly his great interest in science, particularly the telescope, which he had built himself and mounted in his house.

When the position of assistant superintendent of schools in St. Louis was created in 1867, the choice of the School Board

was William T. Harris because of the powers he had already demonstrated as elementary school principal; and later in the same year he was again the choice of the Board, this time to fill the vacancy in the office of superintendent. During the following thirteen years as superintendent of schools in St. Louis, Dr. Harris wrote one of the most brilliant chapters in the story of an extraordinarily brilliant life.

Incidentally, it may be of interest to note at this point that the year 1867, when William T. Harris began his career as superintendent in St. Louis, was the year when the United States Bureau of Education was established with Henry Barnard as first United States Commissioner of Education.

It was in this aspiring, young western community, at the beginning of the important period of reconstruction and expansion in our national life, that this young man at thirty-two years with a wholesome New England background, with an insatiable thirst for knowledge and a tremendous store of physical and nervous energy began to mature into the William T. Harris who was to become the truly great educational leader and brilliant philosopher—perhaps the most influential person in American education for the next thirty-five years.

Let no one think that during the first ten years of his residence in St. Louis as teacher and principal his inquiring mind had been confined to the immediate problems of his school. Associated with a few thoughtful students of philosophy and particularly with the German refugee, Henry C. Brockmeyer, Harris read assiduously and discussed spiritedly the works of Kant, Hegel, Aristotle, Plato, and other philosophers. Perhaps the results flowing from these early explorations into the field of philosophy enabled Dr. Harris to make his most distinctive contributions to American education. During these years he not only developed his philosophic views and understandings but formed the invaluable habit of testing current school questions and practices by these philosophic views. From his wide and growing acquaintance with the best minds not only in the field of philosophy but in literature and history, he developed certain principles that enabled him to appraise

and evaluate the existing theories and practices in the schools with an authority that was soon to command nation-wide respect.

Who other than this marvelous, young, dynamic William T. Harris would have had the courage, the energy and, moreover, the wisdom to begin editing the *Journal of Speculative Philosophy* in the same year that he assumed the superintendency of the St. Louis schools? This journal, appearing quarterly for twenty-six years — from 1867 to 1893 — was perhaps the most highly regarded publication of its kind in America. Dr. Harris's purpose was clear and worthy. He discovered that American thought was, according to his view, too much in the grasp of such English philosophers as John Stuart Mill and Herbert Spencer. It was his aspiration to broaden the horizons of his countrymen and particularly to raise the level of our thinking above the materialistic and deterministic by introducing us to the great idealists of the Greek and German cultures. He wanted Americans to rise to purer forms of thought. The pages of this new publication were filled with reviews and translations of Plato, Aristotle, Kant, Hegel, Schelling, Fichte, and others, not to mention the interpretations of outstanding contributions to art and literature by such masters as Shakespeare, Dante, Goethe, and Michelangelo.

Would that more of us today might have the necessary powers of mind to ascend with him the mountain peaks of philosophical thinking, to glimpse eternal truths as he saw them and, inspired by these broader horizons, to go with him straight to the practical application of these envisioned truths. For those who would attempt an appreciation of these aspects of Dr. Harris' life, I would commend a very thoughtful study by Dr. John S. Roberts, prepared for and published by the National Education Association in 1924.

May I turn to Dr. Roberts for a few fleeting glimpses of William T. Harris, the philosopher and the educational thinker? That the spiritual determines the material was to him elemental and fundamental. For him it was inconceivable

that man should be endowed with spiritual activity unless the Creator intended that the spiritual phase should live forever. Men are independent beings, free and morally responsible, immortally endowed with causal energy; that is, men have within themselves the possibility of infinite growth. The world process is that of evolving, conscious being and the ideal at the summit of the universe is perfect personality.

What did such ideals as these imply with reference to education? I again turn to Dr. Roberts' interpretation. To fulfill his immortal destiny, man must be educated to the highest degree, reasoned Dr. Harris. Education is not a means of fitting pupils for a temporary existence but a necessary element in an evolving world. There is no higher mission than to aid in the development of immortal personality. This purpose connotes a broad liberal aim in education as contrasted with a narrow utilitarian aim. It connotes the widest and richest curriculum. The major factors in education are not to be found in the environment, important as that is, but rather in the thoughts that have guided and inspired men as they have developed the institutions of civilization down through the centuries. Each generation has the duty of mastering its inheritance from the past and of adding its own contribution to the wisdom of the race.

On the side of method, the emphasis must not be merely on that which affords pleasure and interest but more especially upon earnest, sustained work, and particularly on developing the powers of self help.

Individual discipline was thus involved in Dr. Harris' educational platform. As life is real and earnest, a continual struggle upward, so it is with education. Orderliness, punctuality, obedience to authority are necessary in the earliest years. The transition from external control to internal or self control is to be made gradually. "Education," said Dr. Harris, "is the process of the adoption of the social order in place of one's mere animal caprice. It is a renunciation of the freedom of the moment for the freedom of eternity."

Can this man, with a mind that seems to comprehend the

eternal, deal successfully with the everyday, practical problems of superintending city schools? I fancy that there were citizens in St. Louis who anxiously raised this question in 1867. Such anxiety, however, must have been soon dispelled, for we see this young superintendent at the outset tactfully gaining the support of the various racial groups, adding German instruction in the elementary schools, and enlisting the local press in behalf of his program. We see him as the successful champion of free high schools, the so-called "people's college." We find him under the spell of Pestalozzi and organizing a course of study in natural science which became a standard for schools throughout the country. We find him dealing a blow to the lock-step system of promotion. We see him as the enthusiastic champion of kindergartens, bringing to this movement so much support that, within five years after their introduction in 1873, St. Louis had fifty kindergartens enrolling 6,000 pupils. Colonel Francis Parker regarded the kindergarten movement, so intelligently and extensively developed under Dr. Harris in St. Louis, as one of the mightiest influences in the progress of American education. We find Dr. Harris stimulating the professional growth of his teachers through study groups. We see him laboring with the heating, lighting, and ventilation of school buildings. Yes, and we find him pouring into those twelve annual reports so much of basic educational philosophy, pedagogy, and sound administrative practice that they were probably more widely read than any school reports except those of Horace Mann.

In the brief space of twelve years, from 1868 to 1880, the city of St. Louis became generally known as having the best supervised and directed common school system in this country; and William T. Harris had brought to the office of superintendent of schools so much of lofty idealism, practical wisdom, and administrative leadership that the office of superintendent of schools wherever found took on a new dignity, importance, and prestige—an encouragement much needed in those crucial and formative years of our public school development.

Perhaps only to a philosopher is given the courage and

wisdom to forsake in its very bloom that which, to all appearances, has become and is to be his life work. Surely only a philosopher of the calibre of Dr. Harris would have been attracted by the rather ephemeral scheme of the idealistic Emerson and Bronson Alcott to form in Concord a school of philosophy.

It was perhaps inevitable that the philosophy of Hegel and kindred systems of thought which first had entered the life of William T. Harris as an incidental interest should one day demand expression in full-time devotion. I like to visualize a former city superintendent of schools, accustomed to the engrossing and oftentimes harrowing details of administration, now seated in the romantic atmosphere of the study in Alcott's orchard house where Dr. Harris came to live in Concord. Freed from the routine, material interferences of board meetings, discussions on the values of textbooks, or on problems of heating, lighting, and ventilation, I can well imagine the creative release he experienced in profound meditation upon the personality of God, the freedom of the human will, or the immortality of the soul.

In the minds of some, the Concord episode seemed like a retrogressive phase in the career of Dr. Harris, a period when he was out of step and contact with the educational world, a decade of his life which did not eventuate as he anticipated and hoped. A longer perspective, however, indicates that this experience was rather a period for needed integration, for the fuller realization of his powers, and a preparation for even greater usefulness. In no other way than at the Concord school could there have been gathered the philosophic harvest of his years and a conscious assimilation on his part of the mental treasures brought to Concord by those other lecturers of both local and cosmopolitan reputation. These included presidents and professors of colleges in all parts of the country, ministers and theologians ranking high in their profession, and such rare women as Miss Elizabeth Peabody and Mrs. Julia Ward Howe.

Dr. Harris's program for the first year at Concord must

have found him quite in his element, for he dealt with such subjects as these: How Philosophical Knowing Differs From All Other Forms of Knowing; The Discovery of the First Principle and Its Relation to the Universe; Fate and Freedom; The Personality of God; Art, Religion, and Philosophy in Relation to Each Other and to Man; The Immortality of the Soul.

By universal testimony Dr. Harris was the "strong man" personally and intellectually at the Concord school and converted many men and women to his philosophical views. It is said that the women particularly swarmed about him in admiration.

Incidentally, Dr. Harris was continuing the work of editing the *Journal of Speculative Philosophy*, contributing to many magazines, and lecturing extensively. He became president of the famous Massachusetts Schoolmasters' Club and was in general cordially received by the public school officials and teachers in New England.

In March, 1888, Bronson Alcott, Dean of the Concord School of Philosophy, died. Partly out of sentiment and partly because Dr. Harris, the strong leader of the school, had arrived at another parting of the ways, the famous school never convened again.

It is perhaps an anomaly of circumstance that these rich years in Concord should have so nearly cost him eligibility for consideration for the office of United States Commissioner of Education. Dr. Winship has recorded the feeling of one Massachusetts group of persons who believed that Dr. Harris was too impractical for the place. A bureau devoted to registering statistics and giving out information could no more be directed by a philosopher, they thought, than by an absent-minded professor. Furthermore, his previous espousals of the cause of Grover Cleveland were thought damaging to his chances of appointment. Yet, the tireless efforts of the many sponsors who were convinced of his intrinsic worth and eminent case for this high position, reinforced by his record of demonstrated ability and service, won for Dr. Harris. He was

appointed by a Republican president when he was a Democrat, by a Democratic president when he was a Republican, and again reappointed by Presidents McKinley and Theodore Roosevelt. This appointment and his successive reappointments were not only a tribute to the merits of the man but a refreshing indication that the choice of the United States Commissioner of Education was put upon a higher plane than that of partisan politics.

Dr. Harris was so human in the days when the fate of his appointment hung in the balance. He was anxious for the appointment and with it the realization of his aspirations for another opportunity as leader in the field of public education. Can you picture him as he said in that nervous way of his, "But if I could have that position I would say 'Now lettest Thou Thy servant depart in peace'."

So we find him serving a long and uncommonly productive term as United States Commissioner of Education from 1889 to 1906. Concerning these seventeen very fruitful years spent by Dr. Harris as the head of the United States Bureau, Dr. Elmer Ellsworth Brown speaks as follows: "He had infused into its operations a philosophical spirit, a personal life and influence such as has rarely entered the education office of any State or Nation, with an individual bent and quality such as could never reappear in any other time or place." He developed the office from a bureau of information to a friendly beacon light casting its rays into Europe as well as throughout America. The office became identified with its great chief, and people far and wide sought his personal views and opinions.

The diversity of activities in the bureau gave rein to his fertile mind. Dr. Harris humorously said on numerous occasions that his first duty as Commissioner was to count reindeer. This naive statement refers, as you know, to a very shrewd and far-sighted policy initiated in 1892. Confronted with the problem of educating the Alaskan Eskimos, a nomadic people who followed the seasonal migrations of the animals for their sustenance, Dr. Harris heartily supported a movement to bring into Alaska the tame reindeer from Siberia.

These animals would stay in place the year round and thus solve intelligently and permanently a most baffling problem. This is but one example of Dr. Harris' resourcefulness as he carried forward his work in Washington.

A mere list of his accomplishments as United States Commissioner of Education would overtax the bounds of this paper. We find him conferring with Carroll D. Wright and casting the statistical information into proper form. We see him as a key member of the famous Committee of Fifteen whose report on correlation and the course of study issued in 1895 became the basis for the remodelling of courses in most public as well as private schools. In these recommendations he made a plea for true culture including the treasures of literature, history, and the arts; indeed, all the spiritual inheritance of the race.

Again we see him developing a noteworthy series of annual reports including the studies of educational practices in Germany, France, Italy, and Spain. He had in view developing a science of comparative pedagogy. "Each place," said he, "should know the fruits of experience in other places." These reports furnished convincing evidence that the work of the Federal Bureau would be of great value to the nation through its contributions to that unification of thought and practice so essential to educational progress in a great country like ours.

And we see him giving himself unstintingly to the general promotion of education through his many writings and the public addresses that were made here and there in so many communities scattered throughout this far-flung land of ours. Indeed, he gave himself so unsparingly that even the reserves of that iron constitution slowly gave way, bringing his retirement from public service in 1906 and his death in Providence three years later.

I have chosen the narrative method of describing the life of Dr. Harris for the narrative carries its own commentary and its own commendation.

We have been amazed at the variety and breadth of his mental grasp. The bibliography of his writings contains 479

different titles, including the editorship of 58 volumes of the Appleton Education Series as well as of Webster's New International Dictionary. Not only the breadth of his knowledge but the intensity with which he studied his favorite authors is a source of admiration. "I endeavor to read Goethe's *Wilhelm Meister* every year," said he, "and always find it more suggestive than before." The year before his death he said, "I have now commenced the reading of Hegel's *Philosophy of History* for the seventeenth time and I shall get more out of it at this reading than at any previous one." He read *The Iliad* five times in one year in order to see how far that great poem had influenced modern literature.

If we have marveled at the breadth and thoroughness of his reading and knowledge, we have likewise marveled at the height of his thinking, for he was a tireless torch bearer of high ideals, religious in spirit, a man who was charitable both in mind and in heart, indeed a lover of his fellowmen.

I suspect that all of us today, on the one hundredth anniversary year of his birth, feel very humble as we pass in rapid review the milestones in the life of William T. Harris—this intellectual giant, this lofty soul, this friend of mankind. He belongs to that company of American men for whom we are most deeply grateful. His spirit marches on to that immortality which he envisioned so clearly and confidently as the heritage of all his fellowmen.

PAYSON SMITH,
*Commissioner of Education
of the Commonwealth of Massachusetts.*

The Council at Work

THE Council at Work, a feature inaugurated in the last issue of the EDUCATIONAL RECORD, is a brief summary of the outstanding new projects in which the Council is interested, as well as a progress report on undertakings already launched. It is hoped that this survey will give to the members of the Council and those interested in its work a more intimate view of the Council's development. Individuals desiring further information regarding subjects mentioned in this section are invited to write to the offices of the American Council on Education, 744 Jackson Place, Washington, D. C.

MEMBERSHIP

At the meeting of the Executive Committee of the Council in Chicago on October 21, 1935, the following applicants for membership were approved by the Committee:

Constituent

Association of Collegiate Schools of Nursing

Associate

American Camping Association

National Congress of Parents and Teachers

Institutional

Alabama College, Montevallo, Alabama

Antioch College, Yellow Springs, Ohio

Arkansas State College, Jonesboro, Arkansas

* Beloit College, Beloit, Wisconsin

Capital University, Columbus, Ohio

* Carnegie Institute of Technology, Pittsburgh

* Central Y.M.C.A. College, Chicago, Illinois

Creighton University, Omaha, Nebraska

* Denison University, Granville, Ohio

* Elmira College, Elmira, New York

Franklin College, Franklin, Indiana

* Institutions which have held membership in the Council at some time in the past.

- Friends University, Wichita, Kansas
 George Peabody College for Teachers, Nashville, Tenn.
 Gettysburg College, Gettysburg, Pennsylvania
 Green Mountain Junior College, Poultney, Vermont
 Hendrix College, Conway, Arkansas
 Lebanon Valley College, Annville, Pennsylvania
 * Loyola University, Chicago, Illinois
 * Loyola University, Los Angeles, California
 Maine, University of, Orono, Maine
 * Maryland, University of, College Park, Maryland
 Maryville College, Maryville, Tennessee
 Mercer University, Macon, Georgia
 Meredith College, Raleigh, North Carolina
 Miner Teachers College, Washington, D. C.
 Mississippi College, Clinton, Mississippi
 Mississippi State College for Women, Columbus, Miss.
 Newark College of Engineering, Newark, New Jersey
 New Jersey State Normal School, Newark, New Jersey
 Niagara University, Niagara, New York
 North Texas State Teachers College, Denton, Texas
 * Ohio State University, Columbus, Ohio
 Ohio University, Athens, Ohio
 * Ohio Wesleyan University, Delaware, Ohio
 * Pennsylvania, University of, Philadelphia, Pa.
 Phillips University, Enid, Oklahoma
 Prairie View State College, Prairie View, Texas
 * Princeton University, Princeton, New Jersey
 St. Mary of the Springs College, East Columbus, Ohio
 Southwestern College, Winfield, Kansas
 Stephen F. Austin State Teachers College, Nacogdoches, Texas
 Stephens College, Columbia, Missouri
 Tusculum College, Greeneville, Tennessee
 Union College, Lincoln, Nebraska
 Virginia Junior College, Virginia, Minnesota
 Virginia Military Institute, Lexington, Virginia
 * Western College, Oxford, Ohio
 Wheaton College, Wheaton, Illinois
 William Jewell College, Liberty, Missouri
 Wooster, College of, Wooster, Ohio

With the addition of these members, the number of associa-

* Institutions which have held membership in the Council at some time in the past.

tions and institutions affiliated with the Council, as of October 21, was 27 constituent, 22 associate and 265 institutional members.

At the same time, the Executive Committee approved a recommendation from the Committee on Problems and Plans in Education to the effect that the forty-eight state departments of education and all city school systems where the population of the city is 200,000 or more be considered eligible for institutional membership in the Council. These new members will help to bring to the Council the broad experiences and activities of elementary and secondary education.

THE AMERICAN YOUTH COMMISSION

Two new members were named to the American Youth Commission at the meeting of the Executive Committee of the Council in October. They are:

MR. OWEN D. YOUNG, attorney. Mr. Young is Chairman of the Board of the General Electric Company. He has long been active on the boards of many institutions of higher education and as a Regent of the State of New York is much interested in the development of plans for a state-wide survey of education in that State.

REVEREND GEORGE JOHNSON, Secretary of the National Catholic Educational Association. Father Johnson is an outstanding leader in the administration and supervision of Catholic schools. He is at the present time Secretary of the American Council on Education.

The Executive Committee of the American Youth Commission met in Washington December 11, 1935, and approved the following appointments to the staff, as recommended by The Director, Dr. Homer P. Rainey:

DR. OWEN R. LOVEJOY, Social Agency Associate. Dr. Lovejoy, a former president of the National Conference on Social Work, and the American Association of Social Workers, has been active in the work of various social groups for many years. For sixteen years Dr. Lovejoy was secretary of the National Child Labor Committee. He will serve the Commission as the coordinating agent in the study of groups interested in youth problems.

DR. MARION R. TRABUE, Vocational Educational Associate. Dr. Trabue is Professor of Education at the University of North Carolina and

has done outstanding work in occupational research as a member of the Federal Council of the United States Employment Service. His experience with the Committee on Diagnosis and Training Employment Research Institute of the University of Minnesota, and the Diagnosis Division of the Adjustment Service in New York City, makes him a leader especially qualified to direct the work in this area.

DR. GEORGE A. WORKS, Rural Education Associate. Dr. Works is Professor of Education and Dean of Students at the University of Chicago. He has been active in the study of rural problems for many years both as an administrator and a field worker throughout the country. Dr. Works is joint author of *A Report to the Rural School Patrons*.

DR. HARL R. DOUGLASS, Secondary Education Associate. Dr. Douglass is Professor of Secondary Education at the University of Minnesota. A former superintendent of schools, his work and writing, including books on secondary education, educational measurements, methods of high school teaching and secondary school organization, have made him an outstanding leader in this field.

MR. KENNETH HOLLAND, Work Camp Investigator. Mr. Holland has been the Civilian Supervisor for Education in the First Corps Area of the Civilian Conservation Corps since the beginning of the educational activities. His educational program has been regarded as one of the soundest and most effective demonstrations of the possibility of work camp study in the country. Mr. Holland has spent two years abroad studying work camps in Germany, Wales, Holland and Switzerland. He was the first president of the National Student Federation of America.

These individuals have been given temporary appointments so that they may coordinate their work for the Commission with other activities in which they are interested. It is anticipated that as the work of the American Youth Commission expands, other temporary appointees will be named for particular fields of work.

The Commission also approved the following appointments to the permanent staff:

MR. ARTHUR L. BRANDON, Executive Assistant. Mr. Brandon was formerly Director of Public Relations at Bucknell University. In addition to serving as executive assistant to the Director, he will handle press relations.

DR. MERRITT M. CHAMBERS, General Research Assistant. Dr. Chambers, former staff member of the Institute of Government Research,

the Brookings Institution, is regarded as one of the outstanding men of the country in the study of law as it affects schools and colleges. Because of his training and experience in Washington in various research activities, he is especially well qualified for general research work in the American Youth Commission.

The full membership of the American Youth Commission will meet in Washington on January 9 to review the work already under way and to outline policies and future activities.

MOTION PICTURES IN EDUCATION

Plans for the establishment of the proposed American Educational Film Institute are being further developed by the group under the direction of Dr. Edgar Dale.

The five special studies being conducted under a grant from the General Education Board are nearing completion. The Committee on Physical Education has finished the first phase of its work and is now ready to evaluate motion pictures in that field.

The handbook concerning best practices in the administration of visual instruction departments and the digest of printed material on administrative and classroom usage of educational films are in manuscript form, ready for trial circulation among school authorities.

The United States Office of Education, in cooperation with the American Council on Education, sent 12,000 film catalog cards in November to more than 2,000 owners of films requesting a detailed listing of their educational materials. One-half of these cards have already been returned. The Council is now classifying them in order that the information may be readily available. Any institutional or individual owner of educational films who has not received a supply of film catalog cards may obtain them from the offices of the Council, 744 Jackson Place, N. W., Washington, D. C.

Another cooperative enterprise of the United States Office of Education and the Council is a survey of the elementary and secondary schools of the country (1) to determine the status

of visual aids in the schools, (2) to discover the difficulties and needs of teachers and administrators in the use of visual aids, and (3) to ascertain ways in which national educational agencies can assist teachers and administrators in doing more effective work in the field of visual instruction.

FINANCIAL ADVISORY SERVICE

One of the first projects undertaken by the Financial Advisory Service has been a study of the types of financial report forms now being used in educational institutions. Approximately 800 colleges and universities were invited to submit copies of their latest financial statements for examination by the specialists in the office. Suggestions are being made of methods by which these exhibits may be modified to comply more fully with the recommendations of the National Committee on Standard Reports that financial data may be presented in the most effective manner.

In some cases the examination of the reports has led to questions in regard to problems of accounting for educational institutions. For example, the problem of depreciation as applied to the physical plant and equipment of colleges and universities was found to be sufficiently important to make a special review of the situation desirable. This report has been published and reprints are available for distribution from the Council's office.

The Financial Advisory Service has also been engaged in (1) developing a directory of financial and business officers of colleges and universities, (2) collecting references and reports on tuition costs in the early years of some of the older colleges, and (3) investigating provisions for housing faculty members, methods of procuring legal, financial and investment counsel, and desirable procedures in accounting and reporting for the various types of Federal funds that are now being made available to educational institutions.

The Service also has two other major studies under way. The first deals with the administration of student loan funds

and the management of other types of financial aid to students. The second deals with the care and investment of endowment funds.

All studies will be made available for general distribution, but it is hoped that the outstanding contribution rendered by the Financial Advisory Service will be the advice and guidance of individual administrative officers.

COMMITTEE ON REVIEW OF THE TESTING SITUATION

The Committee on Problems and Plans in Education, at its meeting in October, approved the organization of a sub-committee for a comprehensive review of the testing situation. This committee has been authorized to consider and report on the various aspects of the Cooperative Test Service and the validity of the enterprise in the light of present developments in the testing movement, its relation to other testing enterprises now in operation, and in general the place and function of examinations in the educative process.

The following persons have been appointed to the Committee:

President R. A. Kent, University of Louisville, *Chairman*
Professor Carl C. Brigham, Princeton University
Professor Edward W. Knight, University of North Carolina
Dr. Eugene R. Smith, Beaver Country Day School
Dr. George D. Stoddard, University of Iowa
Dr. David E. Weglein, Superintendent of Schools, Baltimore, Md.

RECENT GRANTS

The President of the American Council on Education reported two grants from the General Education Board since the last meeting of the Executive Committee. The Council is to act as fiscal agent in the disbursement of the funds of both grants.

\$25,000 to supplement the work of the Federal Arts Project for the use of the Works Progress Administration.

5,000 for the use of the United States Bureau of Indian Affairs for educational studies and services among the Pueblo Indians.

FOURTH EDUCATIONAL CONFERENCE

The 1935 Joint Conference of the Cooperative Test Service, the Committees on Personnel Methods and Educational Testing of the American Council on Education, the Committee on School and College Relation of the Progressive Education Association, and the Educational Records Bureau, met in New York City, October 31 and November 1. This was the fourth of the annual sessions devoted to the study of fundamental problems in the field of individualized education. Approximately 500 people attended the sessions.

The report of the Fourth Educational Conference has been published as a supplement to this issue of the EDUCATIONAL RECORD.

ACTIVITIES OF THE COMMITTEE ON PROBLEMS AND PLANS IN EDUCATION

At the October meeting of the Committee on Problems and Plans in Education a number of new projects were referred to exploratory sub-committees of that agency. The Committee on Problems and Plans in Education is responsible for planning research activities and other related projects of the Council and regularly commissions sub-committees to investigate various fields to determine profitable areas of research.

Sub-committees were authorized in the following matters:

ACADEMIC FREEDOM AND SOCIAL RESPONSIBILITY. This Committee has been commissioned to survey the various phases of freedom and the desired relationship between educational institutions and society and will cooperate with representatives of other organizations interested in this matter.

COOPERATION AMONG INSTITUTIONS OF HIGHER EDUCATION. This group will explore and report on possible methods of cooperation among institutions of higher education in given areas and regions with a view to reducing unnecessary and expensive duplication.

THE PLACE OF RADIO IN ORGANIZED EDUCATION. The Committee has been set up to survey the present use of radio in organized education and to make preliminary studies of the further possibilities in the use of this medium.

RESEARCH FELLOWSHIPS AND GRANTS-IN-AID OF RESEARCH IN EDUCA-

tion. This Committee was established to study the system of fellowships now administered by the Social Science Research Council, the National Research Council and the American Council of Learned Societies with a view to determining the desirability and possibility of organizing similar fellowships and awards in the science of education.

STUDY OF THE MASTER'S DEGREE. This Committee was authorized to survey the field of the master's degree and to outline a detailed proposal in cooperation with other educational associations interested in the subject for an adequate study of the problem.

HISTORY AND ACTIVITIES OF THE COUNCIL

The second edition of *The American Council on Education; Its History and Activities* has recently been published. This pamphlet explains the function and organization of the Council and sets forth the manner in which it carries on its work. It also lists the committee membership and the general membership of the Council. Copies are available in the offices of the Council, 744 Jackson Place, N. W., Washington, D. C.

CONFERENCES

The American Council on Education has been represented at the following conferences:

- Association of American Universities, Ithaca, N. Y.
- Regional Conference, Association of American Colleges, Atlanta, Ga.
- Association of Urban Universities, Boston, Massachusetts
- Conference of State Superintendents and Commissioners of Education, Washington, D. C.
- Association of Land-Grant Colleges, Washington, D. C.
- The Cleveland Conference, Chicago, Illinois
- The Fourth Educational Conference, New York, N. Y.
- Middle States Association of Colleges and Secondary Schools, Atlantic City, N. J.
- National Association of State Universities, Washington, D. C.
- Southern Association of Colleges and Secondary Schools, Louisville, Ky.

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PREFACE

The educational conference held at the Hotel Roosevelt on October 31 and November 1, 1935, under the joint auspices of The Committees on Personnel Methods and on Educational Testing of the American Council on Education, The Commission on the Relation of School and College of the Progressive Education Association, The Cooperative Test Service and The Educational Records Bureau, was the fourth annual conference sponsored by these organizations. The conference was held in conjunction with the fifth annual meeting of Institutional Members of the Educational Records Bureau.

The main purpose of these conferences which have been held during the last four years is to bring together as many as possible of those who would welcome the opportunity to discuss some of the fundamental problems of educational measurement and guidance. The central theme of the conference this year was "School and College Relations and the Role of Examinations in Such Relations." The widespread interest in the problems which unite the sponsoring organizations is shown by the fact that about 460 delegates registered at the conference. Among these were about 150 representatives from colleges, 200 from independent elementary and secondary schools, 60 representing public schools or city departments of education, 40 from educational associations and foundations, and 4 from state departments of education.

Mr. William L. W. Field of Milton Academy presided at the first session and welcomed the delegates on behalf of the organizations calling the conference. Mr. Field has had a prominent part in the development of the work of the Educational Records Bureau, and it was very appropriate that he should have the honor of opening the conference. Dr. Claude M. Fuess of Phillips Academy, in the opening address of the conference on the subject "From Secondary School to College," discussed the college admissions problem from the point of view of the schoolmaster. Dr. Fuess made interesting comparisons of the English and American entrance examination systems and suggested that we might profit by adopting the

method of the English universities in accepting candidates a year or more in advance of their entrance to college. On the whole Dr. Fuess was optimistic about the college admissions problem and felt that during recent years colleges have become increasingly intelligent and effective in the selection of students. He spoke appreciatively of the recent work of the College Entrance Examination Board in improving their examinations, and expressed the hope that the Board would assume leadership in clarifying our modern philosophy of education.

Dr. Walter A. Jessup, President of the Carnegie Foundation for the Advancement of Teaching, discussed "Some Implications of the Survey of Education in Pennsylvania." Dr. Jessup emphasized the fact that the tests of "enduring knowledge" which were given to Pennsylvania high school and college students showed great variability within classes and extensive overlapping between classes. These data indicate that schools have over-emphasized such mechanical features of schooling as length of term, number of courses, and credits, and have failed to give sufficient attention to learning and educational growth of individual students. The necessity for a less complacent attitude toward the job of the school is one of the implications of this significant study of education. Educational tests and records are important to the extent to which they make possible individual consideration for every student in every class.

In the discussion of this paper the question of the meaning of "enduring knowledge" was raised. Dr. Ben D. Wood was asked to comment on this point and said that enduring knowledge is that knowledge which has been so well organized and assimilated that it becomes a permanent part of the intellectual equipment and thinking of the person who is being tested. The data of the Pennsylvania Study indicate the need for a thorough-going reorganization of our school systems and of our teacher-training, but as yet very little has been done to bring this about. Educators have been content to give lip service to the doctrine of individual differences while they continue to deal with students by mass methods.

The third speaker of the morning was Dean Virginia C. Gildersleeve of Barnard College. The subject of her address was "State Requirements that Discourage Educated Persons from Teaching." She contended that the requirements for state licenses to teach are on the whole rather bad and are becoming worse. There seem to be few attempts to test the personality, the power, the general education and the professional aptitude of would-be teachers, and the drift seems to be towards strangely detailed requirements of specific courses and credits. This tendency is contrary to the newest and most approved educational practice. The mediocre student who does not have many other opportunities for employment will take an extra year or an extra summer to meet the requirement of a given number of hours of instruction in a given subject. The gifted graduate of a liberal arts college who finds she lacks a required course of some sort is usually attracted into some other field.

The last speaker at the Thursday morning session was Dr. F. S. Beers, Executive Secretary of the Georgia University System Experiment. He described the reorganization of state supported higher education that is going on in Georgia under a central Board of Regents and a Chancellor. A number of institutions have been discontinued and the remaining ones greatly strengthened. The program has three aspects; one is concerned with testing and measuring students, another with health, and the third with surveys of community needs with reference to education. The techniques and philosophy of measurement are fundamental to the whole system. Dean McConn in commenting on the reorganization of education in Georgia spoke of it as "an outstanding piece of educational engineering in the present decade."

Dr. George F. Zook, President of the American Council on Education, presided at the luncheon on Thursday and introduced Professor I. L. Kandel of the International Institute of Teachers College, Columbia University. Professor Kandel's discussion of the International Conferences on Examinations, which were arranged by the Carnegie Corporation and held in

England, was very revealing of the spirit and organization of education in the countries represented. The educators who met at these conferences emphasized that the problem of examinations was fundamentally bound up with the purposes and philosophy of education, and that they had to come to an understanding on these points before they could discuss examinations. Professor Kandel's report of the research work on examinations that was carried on in a number of countries showed that real progress had been made during the three years between the first and second conferences.

An informal question and answer session was held on Thursday evening under the leadership of Dr. Arthur E. Traxler of the University of Chicago High School. This meeting was an innovation in the program this year and was arranged because a number of people thought it would be useful to exchange experiences with regard to problems of testing. The discussion centered around the uses made of tests used in programs of the Educational Records Bureau and the relation of such tests to the objectives of individual schools.

Dr. John A. Lester of the Friends Council on Education was the chairman of the Friday morning session of the conference. The first subject for discussion was the Eight Year Experiment of the Progressive Education Association. Dr. Wilford M. Aikin of Ohio State University, director of the experiment, described the work of the first few years. The schools began the experiment two years ago and the first class, numbering about 1200 students, will enter 140 colleges under the new plan in the fall of 1936. Conferences with college administrators in different parts of the country have been held during the past year and it is hoped that the experiment will bring about a more satisfactory relationship between schools and colleges. Dr. Ralph W. Tyler of Ohio State University continued the discussion of this important experiment in his paper "Defining and Measuring Objectives of Progressive Education." Dr. Tyler is in charge of the program of evaluation in connection with the Eight Year Study. The first step of this program was the clarification of educational objectives.

Then interschool committees were set up to assist in developing instruments of evaluation to study such things as interests and attitudes, work habits and study skills, and the abilities involved in interpreting data. The results obtained by the use of these instruments will help in the effective guidance of pupils, and in judging the significance of the Eight Year Study.

The third speaker of the morning was Dr. Eugene R. Smith of the Beaver Country Day School who spoke on "Recent Developments in School and College Relations." Dr. Smith gave a very encouraging report of the progress that schools and colleges have made in the last thirty years in the guidance and education of students as individuals. Dr. Smith's leadership is largely responsible for the progress that has been made in a number of different organizations which are working on this problem. As chairman of the Educational Records Bureau Committee on School and College Relations, Dr. Smith reported (1) that 77 per cent of the colleges replying to the questionnaire sent out by the committee have agreed that they will encourage the emphasis on the type of person who is entering college; (2) that almost as many colleges were in agreement in regard to the value of a record of cumulative comparable tests of achievement, and (3) that a significant number of colleges were interested in the choice of applicants before the end of the secondary school course.

Dr. Smith said that he regarded all types of schools and colleges as parts of one great educational system, and that modern conditions present a serious challenge to all educators. The encouraging thing at present is that schools and colleges are accepting their common responsibility and are making a frank open-minded attempt to solve their common problems.

The latter part of the Friday morning session was devoted to the Fifth Annual Meeting of Institutional Members of the Educational Records Bureau. Reports were heard from the Independent Schools Advisory Committee, the Public Schools Advisory Committee, the Committee on Relations between Elementary and Secondary Schools, and the Committee on Tests and Measurements. The membership of the Educational

Records Bureau at present includes about two hundred and fifty schools, and whatever success the Bureau has attained in the past is due very largely to the loyal cooperation of these schools. A majority of them have participated year after year, in spite of great difficulties and financial stringencies, in the testing and guidance programs of the Bureau. The committee chairmen urged that all member schools should have the tests scored by the Bureau so that the operating expenses might be shared more equally, and so that the norms might be based on larger numbers of cases. The reports from the committees indicate that the services of the Bureau are becoming increasingly valuable from year to year.

The Friday afternoon symposium was a discussion of the experiences of schools holding membership in the Educational Records Bureau. Dr. Percy G. Kammerer of Avon Old Farms presided and contributions to the discussion were made by representatives from the Pawling School, The Choate School, Lawrenceville School, Northwood School, Eaglebrook School, Northfield Seminary, St. Paul's School, Northwestern Military and Naval Academy, Middlesex School and The Hill School. Perhaps the most significant outcome of the symposium was the emphatic indication that member schools of the Educational Records Bureau are clearly aware of the need for guidance as a prerequisite for sound teaching, and of the indispensable role of cumulative records of comparable test measures and other data in the guidance of individual pupils. All of the speakers mentioned the invaluable help that membership in the Bureau had been to their schools. The support of educational leaders and of schools of the type represented by the ten symposium speakers will do much to insure the continued growth and spread of constructive individual guidance.

Mr. Willard W. Beatty presided at the luncheon on Friday and introduced Dr. Richard M. Gummere, chairman of the Committee on Admission of Harvard University. Dr. Gummere in his discussion of admission requirements presented four theses which should be considered in judging any system of admissions: (1) The continuous educational process must be based on fact accumulation as well as upon creative proc-

esses; (2) The maturity of the secondary school pupil must be recognized; (3) It is a fallacy to assume that early specialization, to a reasonable degree, is dangerous; and (4) Some type of comprehensive examination is necessary in passing from school to college. Dr. Gummere praised the College Board's Plan B for college admission and prophesied that it would continue to become more flexible. Advanced work is suitable for gifted secondary school pupils and college freshmen and should be provided to meet the needs of individual students. Better understanding between schools and colleges is doing away with many of the water-tight distinctions that have previously handicapped the articulation between secondary and collegiate education.

The final session of the conference was a dinner Friday night at which Dean Herbert E. Hawkes presided. President Robert D. Leigh of Bennington College spoke at this occasion on "Youth and a Common Purpose." President Leigh's stimulating address was an evaluation of the educational systems and youth movements in Italy and Germany at the present time, and a discussion of the lessons that American society should learn from the experiences of these countries. Not only does American youth psychologically need a sense of security involved in participation in a significant common enterprise, and the valid urge to rigorous training toward competence and fitness which it engenders, but society itself demands it. There is an acute lack in actual social integration. By adhering firmly to the permanently valuable in the American tradition and by facing frankly new factors in this civilization, such as the strategic importance of natural and social science as guides to change, and the necessity of organizing and planning our political and economic structure with a realistic sense of its continental scope, there is the possibility of creating a synthesis which can release the energies of American youth and adults in united efforts at social improvement.

President Leigh's address was made from notes which, unfortunately, he has not had time to write out for inclusion in this report of the proceedings.

MARGARET W. MOORE.

From Secondary School to College

I AM delighted that, at my first appearance as a speaker before this joint conference, I have been assigned such a relatively simple problem as college admissions to discuss and presumably to settle. You will observe that it comes first on the agenda, where it can be dealt with and triumphed over in a brief twenty minutes or so, after which room can be made for more complex and significant matters. I can only add that the confidence shown in me by allowing me the opportunity of ending further perplexity on this subject touches me deeply, although it confirms my long-standing suspicion that inexperience is sometimes regarded as a recommendation by the makers of speaking programs. If I say nothing that is new, ignorance will be my best excuse.

The principles underlying college admissions are dependent, as we schoolmasters in our conceit often forget, on what kind of material the colleges desire, or are willing to take. After all, even the most crotchety and complacent headmaster must allow the college the privilege of determining its own qualifications for entrance; and it is equally incumbent on the preparatory school to see that these demands are met. The school may do more, but it cannot consistently do less. In England, where not more than half of the boarding school undergraduates ordinarily go on to the university, the sifting of the roses from the thistles often takes place rather early, and only the more promising boys are encouraged to try the school certificate examinations of the Oxford and Cambridge Joint Board. With us, however, mediocrity has seldom been regarded as a deterrent to applying for admission to college, and it has accordingly been necessary for each self-respecting college to decide and declare its qualifications for entrance and the procedure by which these qualifications shall, in any given case, be ascertained. From courtesy or discretion the advice of secondary schoolmasters may be sought—not, I trust, without profit—but each college naturally claims the right to select its

undergraduate personnel. In so doing it determines its own character and prepares for success or failure. Every headmaster knows that the standards of different colleges vary and, when consulted, is like to say, "Well, Robinson, if you can't get in Yaleton, I think that Siwash will accept you." A reputation of this kind is, in the long run bad for Siwash, except among the barbarians. It is the door hard to unlock which most people will fight to enter; and no one wishes to go to Siwash except as a last resort.

A schoolmaster may rush in where an admissions officer might fear to tread. Not being at present in any sense a representative of a college, I can approach audaciously the fundamental question of what respectable colleges want—and perhaps of what they ought to have. Shall the college admissions office, or officer, seek boys and girls with factual knowledge or with intellectual promise? The logical, and safe, reply is *Both*, for the two are usually complementary, not mutually exclusive. Of course a Freshman must possess enough factual knowledge to get along without embarrassment. The fatuity of trying to think in a vacuum needs no reiteration here. Obviously a student cannot master French IV unless he is acquainted in some degree with French grammar and idiom. But I venture to suggest that evidence of correct methods of work, of ability to concentrate, of habits of industry, and of reasoning power ought to be disclosed in the passing of an examination based primarily on facts. Facts, as we all know, are readily acquired and retained by a diligent and patient mind joined with a photographic memory; and a man may have perused and assimilated the World Almanac from the first page to the last, and remember every detail, without acquiring mental power. An alert, aggressive, ambitious brain, even though it may not have covered certain fields of knowledge, is more likely to succeed in college, and in life, than a plodding mind which has moved sluggishly and painfully through Algebra or German. All this smacks of the obvious, and I herewith apologize for bringing it for the thousandth time to your attention.

But we must descend to practicalities. Which is, for the college, the better prospect—a slow, uninspired lad who, by sheer persistence under exacting instruction akin to tutoring, has passed off fifteen or more “credits” with an average of 62, or a clever, quick-witted youth who has technically only eleven points, but whose marks are in the 80’s? Over a period of years, the latter will go farther and deeper. Deficiency in the number of courses studied is not so irreparable as insufficient native intelligence. It will be gathered that I regard the so-called Old Plan, or Plan A, insisting on fifteen points, or “credits,” whenever or wherever acquired, as having less to recommend it than Plan B. Plan A is, by implication, based on the Compartment Theory of education—the doctrine that knowledge may be divided into carefully limited fields, each complete in itself, and any one of which, having been mastered, can then be neglected. The weaknesses inherent in the educational philosophy underlying Plan A will not long resist critical scrutiny. It is certainly more reasonable to examine a candidate at a definite time, probably at the close of his school career, or one year before the close, on continuing and cumulative subjects—not courses—which he has been pursuing over a considerable period, and from the results to reach a conclusion as to his capacity for higher studies. If he has been exposed to competent and uninterrupted training in Language and Literature, Mathematics, Science, the Fine Arts, and the Social Sciences, and his response to instructional stimuli has been satisfactory, he should be ready for college.

In the course of a recent visit to several English public schools, I became interested in the long-established English plan by which candidates for Oxford or Cambridge take their school certificate examinations approximately two years before leaving boarding school, and are thus left free during the remainder of their residence to specialize in one of five or six fields of knowledge. An English Etonian or Marlburian thus knows two years before he goes up to the university that he has been admitted to some college, and is at liberty to prepare himself for a scholarship or at least to follow his own bent

before going on to Balliol or Trinity. If he concentrates on the classics, he spends most if not all of his time on Greek and Latin, thus acquiring a proficiency which to American teachers seems amazing. I found boys at Wellington reading Sophocles and Tacitus, two authors certainly not on the Andover list, and Sixth Formers at Harrow taking nothing but Biology. This early specialization has been criticized by some English educators as premature, and the British Medical Association has recently stamped it with its disapproval. On the other hand, certain advantages are to be derived from a system which allows an exceptionally well-qualified boy before going on to college at least one year of relative intellectual freedom for developing his aptitudes and gratifying his inclinations. The practical difficulties involved are complicated but not unsurmountable, and the results of the experiments made by Dartmouth have indicated that a wider application of the principle involved might not be unsuccessful. Indeed the matter deserves more attention than has yet been bestowed upon it, and a committee from the colleges or from the College Entrance Examination Board might well investigate and report on the respective merits of the English and American plans.

In America it seems likely that the principle of the gradual accumulation of credits must eventually yield to a scheme of admission which will endeavor to determine a candidate's general aptitude and achievement in certain subjects. An isolated course in Caesar or in Chemistry taken two years before entrance to Yale is of minor importance as indicating a boy's readiness to meet the demands of the Freshman year. Sooner or later the New Plan will probably supersede the Old Plan, and it is conceivable that a Newer Plan may replace them both. We have been learning lately that no system in government or in society is sacrosanct or permanent; and even education is susceptible to change, decay, and resurrection.

Briefly, then, a college ought to insist that candidates for admission know how to find, arrange, and weigh evidence; how to concentrate on a project and pursue it until it is completed;

how to budget their working hours; how to think clearly and honestly and to express their ideas with clarity and vigor. It ought, furthermore, to secure testimony as to their qualifications in these important respects. Boys who can meet such tests will survive a college curriculum, even though they may not have read to the final antitheses all the orations of Cicero or dissected the last jellyfish in the laboratory.

All this, however, is not only platitudinous but also largely theoretical; and a college admissions office faces perennially a condition, not a theory. A certain number of boys, prepared at schools of different types and with varying standards of instruction, are registered for admission. Most of them submit the customary certificates from clergymen indicating that they are of spotless character and likely to be potent influences for good in the college community. The Freshman Dean perceives that a small army of saints is about to arrive and transform the institution—if permitted to do so. How, in practice, is the skeptical admissions officer to proceed? On what basis is he to separate the sheep from the goats so that he can defend himself against the inevitable charges of injustice, prejudiced discrimination, and partiality? He is aware that he must, for his own good and that of his institution, adopt some workable policy and carry it through consistently. What is he to do?

He can, of course, admit everybody who applies and then leave it to the Freshman Dean to eliminate the weaklings month by month. But this method is wasteful as well as cruel. It raises false hopes and, in the end, satisfies nobody. When it has been tried, it has been a failure, and I am sure that we can ignore it.

He can, in the second place, accept the judgment of some one else—a secondary school headmaster, for example—and thus in some degree transfer the responsibility of selection. This is the method of certification, which, with various modifications, is still in vogue, and likely to remain so. Its value depends entirely upon the wisdom, responsibility, and integrity of the schools from which the recommendation comes—in

short, on the confidence which they can create. Properly guarded, it is an admirable system; and it is vulnerable only because of the ineradicable weaknesses of human nature. A headmaster is frequently under pressure from influential parents and, against his better judgment, signs a certification slip. The boy is admitted, let us say, to Amherst, and does badly. The college is embarrassed, the reputation of the headmaster suffers, and the parents angrily cast the blame on the school. In fact, everybody is unhappy, the poor dropped Freshman most of all, for he might better have gone into business earlier and thus have avoided the ignominy of failure.

In the third place, the admissions officer can insist that the candidate pass formal examinations, set either by the college or by some recognized board, as a partial guarantee that he has completed a certain amount of study satisfactorily. Any examination system is vulnerable; and even the tests devised by the College Entrance Examination Board have been, I am told, occasionally ridiculed, satirized, and denounced. Examiners vary in their moods, readers have their hungry or irrational moments, and boys may be tired or ill or nervous. The human equation, never to be ignored, does affect the results. I myself instinctively distrust these rigid markers, who insist on the infallibility of a 58 or a 72. In my own school a boy doing first-class work in one subject may receive a 98 from his generous instructor; if he achieves corresponding success in another course, he may get only an 85. The College Entrance Examination Board has recognized and conquered many of these discrepancies. Nevertheless the subjective examination will never be free from criticism, no matter how carefully guarded it may be.

Personally, however, I am convinced that entrance examinations of some sort, despite their not infrequent abuses, have a real value, and are a necessary device for measuring ability and promise. Their psychological influence in furnishing a definite and unescapable incentive as a stimulus to industry is most salutary. Life for all of us is a succession of formal or informal tests, enabling or compelling us to review and reha-

bilitate our knowledge. The great Edward Thring, Headmaster of Uppingham School, whose opinion we must respect, expressed another view when he declared:

A system of examination and inspection, in proportion to its power, is death to all original teaching, to all progress arising from new methods, and even to all improvement which is at all out of the routine track. . . . Where examinations reign, every novelty in training, every original advance, every new method of dealing with mind, becomes at once simply impossible. It is outside the prescribed area, and does not pay.

In this comment there is enough truth to give us pause. When examinations cast a lengthening shadow over the schedule from the opening of the year they become pernicious. The most valid condemnation of our College Entrance Examination Board system is that many individual teachers attach altogether too much importance to its examinations and concentrate on the sordid business of "getting their pupils by." But this is not the fault of the Board authorities, but rather of human nature, the evil propensities of which still persist, even in schoolmasters. If these examinations are taken, as it were, "in stride," and not converted into an end in themselves, they are bound to be helpful to any college admissions office.

The College Entrance Examination Board will survive and flourish without any pats on the back from me, but credit should be assigned where credit is due. We are all aware that the philosophy and policy of the Board examinations have undergone during the past decade a considerable change—a change, in my opinion, generally salutary. The tendency towards comprehensive examinations has much to justify it and has won the approval of most liberal teachers of my acquaintance. The recent abolition, almost without a protesting murmur, of the Restricted Examination in English is an illustration of the rapidity with which conversion can be accomplished. In the English examination of my boyhood memory was the quality rated highest, and the books chosen for reading were calculated to destroy any latent interest in literature. The ridiculous questions on grammar, the passages to "spot" from

Il Penseroso, the analyses of Burke's *Speech on Conciliation with the Colonies*, the definitions of artificial rhetorical devices—all these have vanished like the snow in spring. And this is only one illustration. The history of the College Entrance Examination Board indicates a desire on the part of its directors to study trends and meet existing needs. Furthermore it has often raised the rallying banner in an educational world confused by conflicting doctrines and dogmas, and might well go even further. At this very moment, as we know, commissions are working in Mathematics, in Modern Languages, and in the Social Sciences, in the hope that something may be learned and improvements be made. The members argue and protest and groan, and sometimes narrowly avert a riot, but out of their disputations good is bound to come.

In connection with examinations, I have neglected to mention the Intelligence Test as a possible criterion for judging a candidate's readiness for the work of the Freshman year. Every teacher has his own view as to the authority and importance of such a test. I can only say that we have found the better type of Intelligence Test an excellent basis for predicting what a school graduate is likely to accomplish in a college like Yale. I have been told that some colleges, whose names I refrain from quoting, place more reliance on it than on the Board examinations. At any rate, such a test, when properly administered, usually corroborates the evidence secured from other sources; and it would seem that it could be employed to an even greater extent, without very much danger, as a valid means of segregating the fit from the unfit. Unquestionably the results thus far obtained justify the continuance of the Intelligence Test as part of the machinery of the College Entrance Examination Board and of college admissions in general.

The evidence submitted this autumn by a candidate for admission to a college like Princeton consisted, in most cases, of his detailed record at school, the recommendation of his headmaster, his marks on the subject examinations of the College Entrance Examination Board, and his rating on an Intelli-

gence Test, plus the impression produced on the admissions officer at a personal interview. With all this material at its disposal, the admissions office can select far more wisely than it did ten years ago; and it can now predict at the opening of the Freshman year what grades an undergraduate is likely to earn. The Yale experiments in prognostication indicate that the art of reading the future has reached a stage where its accuracy is almost uncanny, so uncanny as to make headmasters trebly cautious about being led astray by their sympathies. They no longer babble vaguely about a boy's "splendid influence," his "sterling worth," and his "capacity for leadership," for these sonorous phrases shrivel when punctured by statistics gathered from actual tests.

One most encouraging feature is the appearance of college admissions officers blessed with "horse sense" and disposed to ignore technicalities. The Chairman of the Admissions Committee has a very difficult job. He must be a rare combination of psychologist, diagnostician, judge, and detective, with the sagacity of Solomon, the discernment of Sherlock Holmes, the diplomacy of Talleyrand, the patience of Job, the courage of Grover Cleveland, and the prophetic power of the Oracle of Delphi. He must expect to be the victim of cajolery, deception, threats, and abuse. Outraged parents will complain to the Trustees that he is too unyielding; angry professors will grumble that he is too soft. He must be *suaviter in modo*, *fortiter in re*, and the iron hand must always be available beneath the velvet glove. He must not be shackled by tradition or entangled by obsolete regulations, but must be more concerned with results than with methods. He must have the intuition to recognize that marks and grades do not tell the whole truth, and that a steady illumination is more useful than a quick brilliant flash in the pan. Such a man is difficult to find, but, if supported by the administration, can do amazing things in maintaining the standards and building up the morale of his institution.

From the practical standpoint, the most significant advance of the last quarter century was made when college admissions

officers began to cooperate actively, scientifically, and sympathetically with schools. The old method was largely mechanical, rigid, and impersonal, based almost entirely upon figures, upon averages and computations. Nowadays a scrupulous admissions officer visits frequently the important schools which feed his institution and investigates carefully—though informally and unostentatiously—their policies, programs, and aims; and the rather intimate relationship thus brought about makes for mutual understanding, a realization that school and college are partners in a joint enterprise, with their interests not antagonistic. The admissions officer can soon form his own estimate as to the reliability of each headmaster and is thus able to discount the latter's recommendations accordingly. In addition, a representative of the college has a private interview at each school with every prospective applicant for admission, in the course of which he can learn much about the boy's attitude, his appearance, and his ambitions. Through this very sensible procedure the machinery of admissions has been made more personal, and each applicant is treated as an individual, not as merely another "rookie" in a regiment. Finally the college representative is given access to the candidate's complete school record, covering his absences, his indiscretions, his accomplishments, his physical weaknesses, funny little facts about teeth and tonsils, the opinions of his teachers and his housemasters, with comments from many sources, and then discusses the list, one by one, with the headmaster or some representative of the school. As a result, the admissions officer has available a large amount of material on which to base his final decision, and the transition from school to college is made less nerve-racking and hazardous than it was in the 1890's.

If I may do so without seeming presumptuous, I should like to express my conviction that college admissions boards have during recent years been doing an increasingly intelligent and effective job. They make fewer mistakes and cause less irritation. The ancient and picturesque pastime of "passing the buck" is less common than it once was. Colleges still differ,

as headmasters have reason to know, and a few prefer to adhere to the letter rather than the spirit of the law. One old and distinguished seat of learning not so long ago obstinately rejected on an absurd technicality one of the best scholars in a school while accepting several who stood far below him in his class. Every once in a while a college will do something so incredibly idiotic or autocratic that a schoolmaster suffers internal pain. I have known a headmaster to break into imprecations because his brilliant boys were rejected on the trivial ground that they could not pass College Board examinations; and I have heard a college dean excoriate the imbecility of a famous headmaster. But the attitude of most colleges has been on the whole so cooperative, so fair-minded, that no conscientious school can help being equally frank and honest. We know that a school must preserve its integrity as a business man maintains his credit. If it is detected in misrepresentation or concealment of the truth, no one will have faith in it. If it guarantees a boy who later does not justify the recommendation, it pays a heavy penalty. As for the college, it ought to trust the school until it can be proved that the school is not trustworthy.

Critics of the College Entrance Examination Board—and I have been myself one of them at various times in the past—should be asked to propose another system which will function as acceptably and with as few blunders. Some of us remember the chaos which existed in the days when each college set its own entrance examinations and when schools had to meet a dozen different standards. The Board has wrought a miracle in bringing order out of confusion and in controlling the practices in American secondary education. Until all preparatory schools are equally effective and trustworthy, examinations of the type set by the Board will doubtless be useful to admissions officers. And no organization is at present better equipped to devise, distribute, and correct admission examinations, to outline educational programs, and to take the leadership in education, than the College Entrance Examination Board.

From this sufficiently positive statement it may be deduced that I see no reason for any radical or sensational changes at present in our existing system of college admissions. I should like to see Plan A considerably modified, or better still, eventually abolished. I should like to see an even more extensive use of examinations of the comprehensive type. I should like to see a larger degree of flexibility on the part of a few colleges. I should like to see the English method of entrance examinations given a careful inspection. On the other hand, no one can have much experience in contemporary education without concluding that those of us from the preparatory schools today are fortunate indeed in having to deal with college admissions officers who, as a group, have sympathy, fairness, and a sense of humor, and who, with one or two exceptions, are willing, not only to meet us half way, but even to endure patiently our complaints and criticisms, and some of our misdirected praise. Finally, if the College Entrance Examination Board chooses to assume a leadership in clarifying our modern philosophy of education, I for one am willing to follow.

CLAUDE M. FUESS,
Phillips Academy.

DISCUSSION

Dean Max McConn of Lehigh University was chairman of the session at which Dr. Fuess' paper was discussed. Dean McConn said he was much interested in the psychological effect of required entrance examinations, and asked Dr. Fuess if he thought the College Entrance Examination Board examinations could be taken in stride. Dr. Fuess replied that the new comprehensive examination in English is one that can be taken in stride. If the right type of examinations can be devised the boy properly trained can take them in stride. The attitude that the school takes toward examinations is very important in determining the reaction of the pupils.

Mr. Stewart, of Mt. Vernon, asked how the public secon-

dary school can prepare for College Board examinations and still do justice to the heterogeneous population in the schools. He felt that in the small public high school it was impossible to allow sufficient differentiation between college and non-college groups.

Mr. Yarnall, of the Germantown Friends School, said that the College Board examinations are changing very rapidly at present, and that any discussion of those examinations must take into consideration the new type of examinations in mathematics and science which are much like placement examinations. Instead of passing and failing, the students are rated as Alpha, Beta, and Gamma students. These placement tests will be equally useful in private and public schools. Some teachers ask, What shall we teach if we are not preparing for a special examination? The answer is, Teach Mathematics, and teach it as a coordinated, progressive study. History is more difficult. But until we can begin to teach history as a continuity we are going to be handicapped. We must consider the type of examinations that we want and the purpose of examinations, but the fundamental question is how are we going to educate our boys and girls?

Mr. Jager, of the Providence Public Schools, suggested that eleventh and twelfth grade pupils should take college preparatory work as vocational courses in segregated groups in public high schools. In Providence a plan for individualized instruction or honors courses for the five per cent who were planning to go to college has been worked out successfully.

Attention was called to the fact that the public schools have not educated the public and the taxpayers to the point where they are ready to provide the type of vocational education needed. The public has accepted too long the idea that college is the end of all high school education. Public school educators have been very remiss in not educating the public along this line.

Dr. Rule, Principal of Langley High School, Pittsburgh, said that there is no answer to the problem as long as we have the small high school and the small school district. We ought

to abolish the small high school and have a much larger unit of organization. Fewer, bigger, and better high schools would make it possible to care for the different types of students. Dean McConn suggested that in a school so small that differentiation of work is impossible there is no answer except consolidation.

Mr. Evans, of the University of Akron, asked: If we cannot differentiate, what philosophy shall dominate? Are we going to return to the dual system? If we retain the unit system, shall the college group or the larger group dominate? Dean McConn answered that probably the larger group should dominate, but that in practice it would not work out that way. The parents of the pupils headed for college will dominate the curriculum, because of their influential positions in the community. Consolidation seems to be the only solution.

In response to a question about the new College Board examinations in mathematics and science, Dr. Brigham discussed the theory underlying the development of the three new examinations in mathematics, namely, that mathematical thinking is a general function. Under the old system of examinations, mathematics was tied up in perhaps eleven different parcels, each carefully labelled as "Algebra up to quadratics," "Algebra, quadratics and beyond," "Solid Geometry," etc. The new attempt to examine mathematics as a whole cuts through that idea of packets of knowledge. In the field of science the proposal is that there be three different types of examinations, representing three different levels. There will be three examinations at the first level, in chemistry, physics, and biology. These will be somewhat like the present examinations. At the second level the examination will represent a higher degree of integration, and instead of examinations in the separate fields there will be an examination in the physical sciences. The third type will be examinations in the separate fields again, but they will be much more advanced than those usually given in schools.

Some Implications of the Survey of Education in Pennsylvania

I HAVE been asked to discuss for a few minutes the implications of the survey of education in Pennsylvania. You are all more or less familiar with the broad outlines of the study.

First, this was made possible by a grant of the Carnegie Corporation, through the Carnegie Foundation for the Advancement of Teaching, to study the progressive knowledge achievement of a group of secondary school students for a period of years extending through college and beyond. Second, the study was started seven years ago during which time records have been made involving a succession of tests of some 30,000 students in Pennsylvania. The tests were prepared by a group of responsible experts in this field. The tests were given under competent supervision and they have been checked by a group of trained specialists. The group of tests given to sophomores and seniors in college and to some high school juniors and seniors included 1,880 questions and was scheduled to require nearly nine hours for each student.

Dr. Learned has said:

As first among cautions should be put the fact that the tests used here to test knowledge and reasoning ability reveal nothing directly as to a person's social attitudes, or sense of values, or religious sensitiveness, or idealism, or aesthetic appreciation, or mental poise, or emotional stability, or physical stamina. All these things are important. Some of them are already susceptible of objective measurement in varying degrees, and others may become so. . . . [On the other hand these tests were set up to reveal progressive achievement in the field of] knowledge that must be accurately recognized. It is believed that none of these items are such as would be familiar through sheer iteration—e.g., 1492, 1776. A few, such as the authorship of important works, can be answered by simple association—if the association exists. But the majority are such as require a definite knowledge of the relations in which the item occurs. . . . No facility in rote learn-

ing is of help in such questions; one doesn't learn such things "by heart"; one reaches his result through awareness of relationship which is thinking. The memoriter learner comes off far better in the customary term test in college where the emphatic pronouncements of the professor or the last-minute coaching of a friend still ring in his ears, or where the appearance of the text can still be conjured up before the eye. Few professors object to having their own statements returned to them and the student who is armed with automatic responses, the result of mere freshness of impression, has an excellent chance of registering his 60 per cent. In the new tests, the questions brought up in unexpected connections, and reaching back always into a variable past in the student's learning, demand answers which, except by accident, can be drawn only out of the living fabric of his mental world—construction elements that have stuck because they have taken their places in a definite organization of relations. To put them there the mind has been obliged to hew and fit them to their proper niches—in other words, to "reason" with them.

Thus it would seem that this test is set up to meet the very condition for which the school has been organized. I am sure we would all agree that the conventional scheme of instruction is set up for the transmission of knowledge. The lecturer lectures about something, and as a rule this involves informing knowledge. While most of us would insist that the schools have been pointed in the direction of attaining the more general aims of idealism, aesthetic appreciation, emotional stability, and the like, yet it is a fact that the work of the lecturer or instructor has been supplemented by elaborate use of the storehouses of knowledge such as the library and the laboratory. Quizzes and term examinations are well known academic devices which revolve around the idea of knowledge and the power of reasoning with it. The possessor of knowledge who understands what it means usually has no difficulty in earning his credits. It would thus seem that the comprehensive examination used in the Pennsylvania study is a fair test to apply, especially in view of the fact that, in general, those regarded by their teachers as the best students, both at the secondary and collegiate levels, attain very high scores, thus demonstrating that they are at home in these areas.

The results, after seven years of inquiry in this field, furnish dramatic evidence of wide variability in the "student's enduring knowledge," to use Dr. Learned's incisive phrase. This variability is shown in the average attainment of whole student groups. The average score of similarly classified students in group A differs widely from the average score of students in group B. This is equally true on the secondary and college level. It was found that the median performance in group A might be 150 per cent higher than the median performance in group B. Either some schools have been more skillful in selecting students who have "enduring knowledge" at the beginning, or they are more successful in stimulating students to attain "enduring knowledge." In recent years the various standardizing agencies have sought by systems of accrediting to classify schools on the basis of their acceptance of and conformity to well known standards that have been supposed to be necessary in order that first-class education may result. Schools have been rated and placed on approved lists in the degree to which they have conformed to such standards as size of endowment, training of staff, number of departments, size of laboratory, number of volumes in library, length of class-hour, proportion of laboratory periods to lectures, and similar standards that can be definitely measured.

Thus college A and college B may be on the same approved list. Each bears the mark of academic respectability from such approval; but from the standpoint of the Pennsylvania study they exhibit different intellectual climates, which, if they were better known, might have far-reaching effect upon parents and students who are selecting a place to live during four years of college life.

Not only do these colleges differ among themselves but there is a wide difference within the institutions as to the departments which attract or hold persons who have a flair for "enduring knowledge." For example, students majoring in science and mathematics rank very much higher than the students majoring in business or education. Students in education rank almost as low as athletes. When these data are still further broken down, even more striking variation is

revealed. The same identical detailed comprehensive examination was given to 5,747 college sophomores and 1,503 high school seniors. The range of performance was so great in each group and the overlapping was so pronounced that almost one-fourth of the high school seniors attained a higher rank than the average college sophomore. It has been the theory of our conventional educational organization that, as the student accumulated credits leading toward graduation on the one hand, the school, on the other hand, was securing fairly homogeneous groups for purposes of instruction. While it is true that doubt has been growing as to the soundness of the conclusion, yet there has been a general acceptance of the idea that there was progressive attainment of specific levels from the senior class in high school through the sophomore class in college, and on to the senior class. Analysis of the "student's enduring knowledge" in Pennsylvania records the error in any such belief. Not only did almost one-fourth of the high school student group attain a higher rank than the average sophomore level, but 10 per cent of the high school seniors outrank the average for the senior college class! Within the given classes, the range of "enduring knowledge" on the part of the students was approximately as one to ten. As a matter of fact, the individual differences, as revealed by this test, were such as to make it seem essential to find a new basis for classification in both high school and college.

Less than a generation ago, professional educators heard much of the word "apperception." What chance has a typical teacher in a typical class exercise in the high school or college for invoking this underlying pedagogic principle in the light of this extreme variation of "enduring knowledge" equipment of the different students? Indeed the results are so striking, so diversified, as to cause Dr. Learned to say that no system of education can be adequate until we provide means for finding out what a student knows and can do before we begin to instruct him at a level where he can and will take hold for himself. Indeed he believes that "our conception of the college function is being rapidly converted to the notion of a wealth of opportunity wherein, under appropriate advice and encour-

agement, the responsibility rests squarely but freely on the student; it is a fact of the profoundest significance that *instruction* is disappearing from our formulas and that *learning* is taking its place." How can we expect groups of such variable children to profit when we confront them all with essentially the same intellectual demands?

With our present system of educational organization, we unconsciously over-emphasize many of the mechanical features of schooling, such as length of term, length of hour, number of recitations, number of courses, and the other things that are involved in the mechanical parts which make up the thing we call a unit or credit. We give examinations freely in the schools but, for the most part, these examinations are so made as to conceal rather than to reveal differences. Few schools are so organized as to be able to recognize and describe the extreme differences that exist in the students who are selected and promoted or graduated on conventional patterns. We ignore the vital variation—that is the actual differences in the students, not alone in their rate of learning and their ability to learn but in their stock in trade. The differences in the "student's enduring knowledge" should condition every act of the teacher. It is a recognition of this fact that has brought Dr. Learned to say:

. . . the only rational counterbalance to this change of attitude is that whereby the institution, abandoning its time-honored rôle of watch-dog of the curriculum, redefines its obligation to the student in terms of skillful, sympathetic supervision of the individual's *progress* based on exact evidence of his powers—all of them—in order that he may *learn* most profitably.

With our current interest in building a curriculum that will constitute an adequate and comprehensive program of knowledge, with our concern for the life of the school and of the student, with its emphasis upon elimination of dead timber and on the introduction of warm and throbbing bits of experience from the real world, we have lost sight of the student himself. Recently the principal of one of the progressive high schools lamented the fact that, despite the most serious efforts of his staff, the students were bogged down in their interpretation

of this changing world because of their lack of basic knowledge sufficient to interpret these living and vivid excerpts of the social experience. If his students were like the students revealed in the Pennsylvania study, he probably had in his senior class students whose range of knowledge ranked with that of the best seniors in college. At the other end of the curve he probably had students whose information was well nigh nil. Small wonder that this program was breaking down, even though it was outlined on the most progressive and constructive lines as proposed by our most advanced educational leaders of the day. A study of the "enduring knowledge" of all of the students in one college in Pennsylvania was revealing. The scores of the seniors were compared with those of the juniors, sophomores, and freshmen. The overlapping both in the lower and upper levels was extensive. Many seniors had less "enduring knowledge" than many freshmen. As a matter of fact, had the administrative officers of that college decided that they would graduate on the "enduring knowledge" basis rather than on four years of accumulated credits, they could have graduated a class of about the same size as the class that was turned out, but the class would have been made up of 28 per cent of the actual seniors, 21 per cent of the juniors, 19 per cent of the sophomores, and 15 per cent of the freshmen. (In numbers each class contributes about 25 per cent of the total "senior" class on the new basis.) Certainly no one in this room would propose just that as a procedure for constructing a senior class; but in view of our emphasis on knowledge and our wide variation in its attainment on the part of students it certainly would be of great importance for the schools and colleges frankly to face the problem raised in the study. What is the institution's attitude to be toward "enduring knowledge"? Is "enduring knowledge" of value? If so, shall we graduate students when they have attained it? And shall we refuse to graduate students without it? Further analysis of these data indicate that students, as thus measured, differ during their period of college education more than most persons have admitted. For example, assuming that college A and college B register students of equal ability as shown in intelligence tests, after two to four years, students in college A will

have attained higher average standing than have students who registered in college B. It would seem that there are differences in techniques, differences in personnel possibly, differences in atmosphere and environment, whereby the same type of student will be affected in different ways by attending different colleges. Students of equal ranking as freshmen who go to different engineering schools come out with very different amounts of "enduring knowledge" not only in the field of engineering specifically but in the cultural subjects and in the arts. To those of us who are interested in professional education it is somewhat distressing to note the low ranking of students of education. As a matter of fact, Dr. Learned found that 15 per cent of the high school seniors who got their best scores of the examination in the science test, did better in science than 40 per cent of the college senior science specialists who expected to teach science in high school: about 35 per cent of 643 high school seniors achieved better scores in a 1,200 question general cultural test than did the average of 606 sophomores in the education curricula of our colleges.

Thus it may be seen that, among the implications of the Pennsylvania study, is the necessity for a less complacent attitude toward the job of the school. We rest comfortably in our system of units and promotions and graduation. We rest comfortably with our easy manipulation of the curriculum and simple shifts in educational materials. We cover the ground. Dr. Learned says:

Incredible as it may seem, the chief difficulty encountered in giving the Pennsylvania college tests was to persuade the several faculties to give up two days of instruction on three occasions two years apart. Some institutions withdrew or stayed out altogether on this account. Their view was that two days of "ground to be covered" by the instructor were too sacred to be sacrificed to an external examination. . . . It is our belief that education must balance its books in this respect.

It is a truism to say that the child is the center of the school, but even though this be the case how little we know

about him. Our present devices for selection and promotion do not secure homogeneous groupings. We need to take whatever additional steps are necessary in order that we may know the students that we have in our classes and that we may take cognizance of their variation; and the moment we do this our complacency will be destroyed. Our satisfaction with our organization and our mechanical units and our presentation of logically selected bodies of material will be disturbed.

This two-day conference centers upon educational records. The Pennsylvania study suggests that your work is important, but it is important only to the degree that it actually makes it possible for a student to receive individual consideration within every class and in every contact. It does not necessarily mean that he be isolated, but it does mean that he should be given his chance to progress at his own rate, that he should know what the school is about. If we believe in knowledge, what steps should be taken in order to increase the "student's enduring knowledge"?

WALTER A. JESSUP,
*President, Carnegie Foundation
for the Advancement of Teaching*

DISCUSSION

Dean Max McConn of Lehigh University presided at the discussion of Dr. Jessup's paper.

The question of the meaning of the phrase "enduring knowledge" was raised, and Dr. Jessup asked Dr. Ben D. Wood to express his ideas on the subject.

DR. WOOD: Knowledge is enduring only if and when that knowledge has been so widely related to other knowledge and has been so thoughtfully organized into important relations that the result is a system of ideas that hangs together. When you ask a student a question that looks externally as though you were asking him for a memory reproduction of an isolated idea, you are really asking him not to remember an isolated

fact but rather to identify a fact which in his mind is related to other facts in such a way that he thinks it, rather than merely remembers it in the way in which one remembers telephone numbers. I cannot conceive of any other way for knowledge to become enduring except as it is organized by long thinking and study. There is a great difference between the external appearance of the questions asked in objective tests, for example, and the actual meaning of test scores on large collections of such items. The questions seem to call for isolated facts, and many teachers in earlier years made the assertion that they could cram their students so that they would pass these tests with very high scores but without really understanding their meanings or relations. The tests do give that impression superficially. If it were possible for students to memorize by sheer rote memory the large masses of facts that are sampled by the better objective tests, the tests would become of little value except in testing that type of memory. But when you look at one of these tests and realize how broad a body of facts it samples, you have to come to the conclusion that sheer memory work will not often if ever enable a student to get a high score. Of course, if the students could anticipate the exact questions it is conceivable that they might memorize the answers. But when you ask them several hundred questions which they have not seen before and which they have had no opportunity to anticipate specifically, then I think it ought to be obvious that rote memory will rarely if ever enable a student to give an impression of deep knowledge. Enduring knowledge is that which has been so well organized and assimilated that it becomes a permanent part of the intellectual equipment and daily thinking of the person who is being tested. I think that is the type of mental content that was measured by the tests used in the Pennsylvania Study.

We know that the scores derived from those largely factual tests are very highly correlated with independent measures given by the college and school professors, presumably largely on the basis of the observed thinking ability of the students. Moreover, many studies at both the secondary school and the

collegiate levels indicate that the so-called information tests and the so-called reasoning tests measure the same thing to an extent of between 85 and 90 per cent. That seems to be due to the fact that knowledge and thinking are really complementary; there is no opposition between them. You can't think without something to think with, and I have come to the conclusion that very few of us can remember very much without some degree of thinking.

President Rogers, of the Polytechnic Institute of Brooklyn, suggested the need for differentiating in this discussion between various concepts of knowledge. The mastery of knowledge and the power of constructive thought are two aspects of knowledge which are complementary. In the sciences there is a wide variation in the amount of information that is required before one can develop the fundamental processes of thought. The manner in which a subject is taught tends to determine the student's power of constructive thought in that field. There is still a long way to go before we shall have examinations which will differentiate between the different types of knowledge.

Dean Bill, of Dartmouth, asked if the overlapping found between high schools and colleges in Pennsylvania was not due to the fact that there are a lot of poor colleges in Pennsylvania. Dr. Wood replied that the overlapping is both real and large. Even if the differences are only half as great as they appear we are still convicted of trying to handle very heterogeneous masses of students just as cattle are handled in the stockyards. We have paid lip service to the doctrine of individual differences, and yet our collegiate and secondary school organizations are still practically indistinguishable from what they were thirty years ago. My own feeling is that in order to meet this problem we need to have a fundamental reorganization and redirection of our efforts by means of an effective guidance system, and that would involve what I conceive to be a fairly significant redistribution of the funds that are placed at our disposal for the operation of our educational institutions.

State Requirements That Discourage Educated Persons from Teaching

AN ODD situation is developing in the teaching profession, caused by changes which are being made by various states in the requirements for licenses to teach. The general tendency seems to be to discourage educated persons from teaching in our public schools; to insure having in these vitally important posts, on the whole, the less educated members of the educated class.

Of course we here would all agree that it is of the utmost importance to our country to have the best possible teachers in our public schools—the best human beings we can produce, educated, wise, alive, interesting, with a gift for teaching and sympathetic understanding of young people.

Whether we attract such human beings to want to teach in our public schools, and are able to select the best from among our candidates, depends to a very considerable extent on the requirements set up by the various state authorities for licenses to teach in the public schools. Are these requirements now fairly good and getting better? On the contrary, they seem, on the whole, to be rather bad and to be getting worse. So that it looks as if it might become harder and harder to get educated persons to teach in the public schools.

This sounds so absurd that I must make it clearer by a concrete, imaginary example, to illustrate the tendency against which I am protesting.

But let me first assert as emphatically as I can that I am *not* attacking in particular the New York requirements, as some persons have assumed from my previous utterances. I am attacking not any one state, but a general tendency evident in many of our states today. New York is by no means one of the worst in this respect. We have bright hopes that our State Education Department may soon make it even better. Perhaps I ought to explain also that my remarks apply for

the most part rather more to High School than to Elementary School requirements.

And now for my imaginary, concrete example to make clear the tendency to which I object.

Suppose you are running a Normal School in the small state of Blankdash, and have arranged your curriculum so that all your students take seven points of English Composition, three points of Hygiene, eleven points of American History and Government, nine points of Educational Psychology, seven points of History and Philosophy of Education, fourteen points of Practice Teaching, five points of Ethics—and so on through a mainly prescribed four year curriculum. Then suppose that, convinced of the educational soundness of your particular curriculum as a training for teachers, you persuade the State Board of Education—or whatever its official name may be in the State of Blankdash—to pass a rule saying that all candidates for licenses to teach in the High Schools of Blankdash must have had, in their college or normal school course, seven points of English Composition, three points of Hygiene, etc., etc.—enumerating all the courses prescribed for students in the Blankdash State Normal School, but not prescribed, or indeed offered in just this form and amount, in Liberalia College in the State of Blankdash, or indeed in any other college or any other normal school in the United States.

Well, when there is an opening for a teacher in a local High School, obviously the only persons who can qualify will be the graduates of your own local Normal School. Even if the most brilliant and promising member of the graduating class of Vassar should want to teach in that High School, she couldn't qualify—unless perhaps she should study somewhere for another year, and take two points of English and one point of Hygiene, and two points of Ethics and a lot of other fragmentary odds and ends that she hadn't happened to include in her undergraduate curriculum. She will not want to do that, but will turn her attention to some other field of work.

And obviously any young resident of the State of Blank-

dash who looks forward to teaching will probably go, not to the local college of Liberalia, or to Harvard or Radcliffe or Bryn Mawr, but to the State Normal School of Blankdash, which has what amounts to a stranglehold monopoly on the public school positions in that state.

If you protested to the State Board of Education of Blankdash they would probably say that they preferred their own local young people as teachers, anyway.

This case I have described is an imaginary one. I do not know of any actual instance quite so extreme. But it may exist; and the tendencies of the moment are certainly moving in that direction.

The result is that *it seems to be rapidly becoming impossible for graduates of our best liberal arts colleges to teach in the public schools of this country*. This is a pity. These colleges, with all their faults, have many advantages. They are well endowed and equipped, they are rich in fine traditions, they attract many of the very best young men and women of the nation, and develop their minds and spirits so that when they graduate they are on the way to being unusually well educated all round human beings. Many of them want to teach. They can continue to find posts in the private schools; but apparently not in the public schools. Must we really shut out from our public school posts the best educated young men and women of the nation?

The causes of this situation are not quite as simple as my imaginary example implied. The increasing requirement of professional work—in theory and principles of education, in methods and in practice teaching—is due partly, no doubt, to the experience of School Boards with incompetent young college graduates who lacked a command of the technique of teaching. The Boards have naturally wanted to insure some really professional equipment in their new teachers.

Unfortunately, however, this large prescription of technical training is likely either to bar out young Bachelors of Arts altogether, or to force them to include in their undergraduate course so much professional work as to prevent their learn-

ing very much about the subject or subjects they expect to teach. If a postgraduate year of professional training were required, the temptation to thrust the technical work into the college curriculum would be avoided. This postgraduate requirement is already in force in some places.

At a recent meeting of the Association of Colleges and Universities of the State of New York in Albany, there was some interesting discussion of this question. Some speakers stressed the great difficulty of providing satisfactorily in the usual college of liberal arts the professional requirements specified. They lamented the fact that in colleges, universities and normal schools the required "education courses," intended to fire the students with the beauty and significance of the profession, were so often dull and damping and drove the best young scholars to other fields of work. They pointed out vigorously that the requirement of "practice teaching"—so sound in theory—was often impossible to carry out satisfactorily and became almost a farce.

Most emphatically of all, the speakers protested that it was impossible to thrust down into the undergraduate liberal arts curriculum all this heavy professional requirement without seriously interfering with the student's acquiring some mastery of the *subject* or *subjects* he was going to teach, and interfering also, and very gravely, with his general education. A representative of the State Teachers Association explained very convincingly that the teachers of today, to teach the subjects in the way required today, and to answer the demands of their pupils for light on the problems of today, felt very acutely the need of much sound, fundamental, general education. The teachers urged the requirement of a "fifth year" of post graduate work, following the Bachelor's degree, to contain a considerable portion of the professional training.

An informal, unofficial vote was taken at this Albany meeting to show the "sense" of the assemblage and it proved to be overwhelmingly in favor of the requirement of the "fifth year."

There is another feature of the requirements for licenses which is very objectionable to the liberal arts college mind. I have illustrated it in my imaginary example, the State of Blankdash. This is the tendency to prescribe very definite subjects and numbers of points or hours covering a large part of that four years college course.

We had an example of this in the New York City requirements for the license in Commercial Subjects announced a year or so ago. Barnard College and the School of Business of Columbia University discussed planning a joint program to meet these requirements. But it seemed too difficult. To meet them in her college course a student would have to know, from the moment she entered college as a freshman, that she wanted to teach Commercial Subjects in a High School. Of course it is generally quite impossible for a freshman to know what she will like best and be best able to do.

This very important truth is often overlooked by school authorities, who set up requirements so rigid and so extensive that to meet them satisfactorily the candidate ought to know almost from the cradle just where his destiny lies. By such a policy many of the most competent young people may be driven away from High School teaching.

Another kind of example of the difficulty of meeting specific requirements is provided by the State of New Jersey, which recently demanded, among other things, that its High School teachers should have had *three points* of Health Education. Now it happens that Barnard College offers and requires of all its students as one of its two prescribed courses a two point course in Hygiene, and offers no more. It is a particularly good course, I think; I feel sure there is no better in all the country. But today a Barnard graduate who wants to teach in New Jersey, will have to go to a Summer Session or elsewhere and acquire somehow one more point of Hygiene.

If this sort of thing is multiplied by different states in different subjects, you can easily see what an intolerable situation results. The educational authorities often do not realize this, because they think of a college as having to meet

only the requirements of the state in which it is located. They forget that in most of our best liberal arts colleges we have students from many states. That is one of our great educational advantages: we can offer our young people a chance to know friends from all over our own country and from nations beyond the seas. But we can't offer forty-eight, or even twenty-four, different courses in Hygiene to meet detailed requirements of different states.

We inevitably differ in this respect from State Normal Schools and colleges with a purely local constituency. But surely it is unwise to drive away from our public schools all graduates of colleges of this national type by setting up detailed requirements which they cannot meet. Is it not unwise also to drive away individuals who by study abroad or in some other unusual way have acquired an education better even than that which our colleges can give?

The detailed requirements of the sort I am lamenting will not drive away *all* candidates, of course. They will not drive away many of the mediocre ones, who will take extra years of study to qualify for a post. It is the *best* candidates who are driven away by such "catch" requirements. They can easily find work in private schools or in other fields.

A strange thing about some of these state requirements is that they seem to demand only "exposure" to so many hours of instruction. The college is sometimes merely to certify how many hundred hours the student has sat in the classroom, with no statement as to marks or evaluations of her own work or any other result of the exposure.

Earlier in my address I said that if you complained to the authorities of some states that their requirements limited their candidates to their own State Normal School, they would no doubt reply that they preferred their own young people, anyway. This is a real element in the present situation. In hard times authorities not unnaturally want to take care of their own people. Lots of local families are hard up. The officials, conceiving of teaching positions as a sort of "dole," sometimes tend to distribute them to those of their own

people who most need the money, rather than to the most competent teachers who can best serve the children of the state. It is a very natural instinct in bitter days of need; but alas, a very perilous one for the schools of the nation.

The requiring of a lot of specific points or hours in certain subjects for licenses to teach, this growing tendency against which I am protesting, is, curiously enough, just contrary to the newest and most approved educational practice of the time. Does not that seem rather quaint? The drift in college admission policies, for example, has been just the other way. Many of the best schools and colleges have been endeavoring to stop merely adding up hours of "exposure" to instruction, and to set up instead tests of power and achievement. The psychological and scholastic aptitude tests for admission to college, the reduction in the number of prescribed subjects, the abolition of prescribed courses for the degree, the comprehensive examinations and special honors courses are striking examples of this tendency. It is seen also in various professional fields and recently in the enlightened effort of the U. S. Civil Service Commission to set up a general test of power and qualification, without requiring specific subjects, for college graduates wishing to enter the government service.

It would seem reasonable to expect in the profession of education itself some similar effort to test the personality, the power, the general education and the professional aptitude of would-be teachers. There are indeed a few attempts of this sort, but on the whole the drift seems to be towards the strangely detailed, "catch" requirements that tend to discourage educated persons from trying to teach in our public schools.

The case is not going by default, however. A rising tide of protest is becoming evident. The great scholarly associations, for example, are lifting their voices, asserting that for a teacher of chemistry some really thorough knowledge of chemistry is primarily indispensable, or for a teacher of history, some wide and sound knowledge of history.

We at Columbia University are particularly interested in

this vast and difficult and important problem. Comprising several liberal arts colleges and a distinguished professional school of education, our university ought to be able to study the facts as they affect us and seek to suggest solutions. President Butler has appointed a committee, under the Chairmanship of Professor George W. Mullins, to consider the whole question. It will, I am sure, welcome light from any quarter.

VIRGINIA C. GILDERSLEEVE
Dean, Barnard College, Columbia University.

DISCUSSION

Dean Max McConn of Lehigh University presided at the session at which Dean Gildersleeve's paper was discussed.

MR. STEWART, Mount Vernon: I want to express my appreciation to Dean Gildersleeve for emphasizing the effects of specified units on the education of teachers. I feel that a word or two on the same point from the public secondary school angle may not be out of order. Quite a few colleges still have rosaries of specified points peculiar to themselves. As a public secondary school principal I have watched pupils count over these beads and try at last to kiss the cross of College Boards and Regents in the name of what they were led to believe was "enduring knowledge." The results of the tests described this morning by Dr. Jessup indicate that possibly some fallacy exists somewhere along the line.

If specified requirements have the disastrous effects in college education and the preparation of teachers described by Dean Gildersleeve, what effect have specified units had on the secondary school and the preparation of pupils for college during the past thirty or forty years? Too much fault should not be found with the secondary schools if they are requiring specified units for their teachers. They are applying a procedure which they may have learned from the colleges. Is it fair for the college to have a protective tariff of specified

units as pupils leave the high school and then try to insist on a policy of free trade when those same pupils return as teachers to the secondary school?

It was mentioned that many students in college did not know even in the junior year that they wanted to be teachers and that in such cases meeting prescribed units was almost impossible or at least very difficult. The same point applies with equal or greater force to sophomores and juniors in high school who do not know what college they desire to enter. The idea of a fifth year for professional training of teachers suggests to the secondary school a fifth year in which to meet specific college requirements, leaving the first four years for education.

The papers this morning pointed to the problem, common to the secondary schools and colleges, of determining power in terms of enduring knowledge rather than in terms of units. Seeking a solution to this common problem should bring us closer together. A corresponding topic to "State Requirements that Discourage Educated Persons from Teaching" would be "College Requirements that Discourage Secondary School Pupils from Learning."

DEAN GILDERSLEEVE: My principal point this morning was that for at least twenty-five years the colleges have been realizing this point of view and the justice of this particular complaint, and for at least twenty-five years the colleges have been doing away with prescribed units and trying to set up tests of power. I hope the scholastic aptitude tests will go on. My point was that whereas in the case of college admissions the drift had been away from prescribed units, the drift seems to be quite opposite for licenses to teach. I agree with what Mr. Stewart has said. As the college curriculum has become less and less prescribed it has been less and less necessary to dictate certain subjects among the entrance requirements. I think the liberal arts colleges are to blame for accepting a good many of these prescriptions of a professional sort and trying to meet them without a professional course. I should like to state emphatically that I don't think I have

been particularly influenced by the point of view of the liberal arts colleges. Our best young women who are barred out from teaching in the public schools don't need your sympathy. It is the public schools of the country that I am sorry for, because they can't have so many of the best young people coming out of the liberal arts colleges.

Mr. Lehman, of Highland Manor, said that the state was interfering in education in another way and discussed the bill concerning junior colleges which is before the New York legislature. He objected to this bill because it would prohibit any institution from calling itself a junior college until it has fifty students, because it would prohibit a faculty member from teaching in a junior college and a high school at the same time, and for other reasons.

Miss Morriss, of Pembroke College, Brown University, stated that the Rhode Island legislature had recently made certificates necessary for college teachers as well as high school teachers. For a provisional certificate a teacher must have had 200 clock hours of education, and 800 clock hours of professional education courses are necessary for a permanent certificate. The complications and serious consequences of such legislation are obvious.

Mr. Crehan, of South Orange, suggested that so long as state boards of education are dominated by teacher training institutions they will continue to set up conditions for certificates that will favor their graduates.

Dr. Rule, of Langley High School, Pittsburgh, said he felt that in Pennsylvania at least the trend was towards a little more horse sense in this matter of administering standards of certification. The situation seems to be getting better rather than worse, and state boards are coming to administer standards rather than to enforce standards. The integrity of the four-year liberal arts course must be protected. Teaching cannot really be a profession if preparation consists merely of undergraduate work. The sentiment seems to be in favor of building on top of the liberal arts course a professional course.

The Georgia University System Experiment

IN 1931 the legislature of the State of Georgia passed what is now known as the Reorganization Act. With reference to state supported higher education, the significance of the Act was that it set up a central Board of Regents and a Chancellor for the entire university system consisting then of twenty-four colleges variously located over the state. Until that time, each school had had its own separate board of trustees and each propitiated the legislature for funds. The general situation is described by the historian E. M. Coulter thus: "There was saddled upon Georgia an educational monstrosity without parallel in the annals of American history."

But with organization newly centralized and power concentrated in a Board of Regents and the Chancellor, the next step was an appeal to the General Education Board for funds with which to survey higher education in the state and from such a survey to formulate a policy. The Commission consisted of Messrs. L. D. Coffman, E. C. Elliott, C. H. Judd, G. F. Zook, and G. A. Works. These men brought with them to the survey their experts in various fields and submitted a printed report with recommendations after they had made a careful analysis of the situation.

These recommendations are too elaborate to be taken up in detail. For the moment, however, it may be worthwhile to point out two or three of the major suggestions. In the first place, the Commission advised that six or seven of the units be abolished; and the Board subsequently abolished them. Six colleges were discontinued. And the remaining ones were strengthened by virtue of the fact that more funds were available. Another significant recommendation of the Commission was that the fractionated curricula operating in the various units be unified for the junior college level. And,

under the direction of Chancellor Weltner, a study was made of curricula, and courses were outlined to be written up by the local faculties. Syllabi were prepared in human biology, physical science, social studies and the humanities. The psychological significance of this move was that it forced teachers who had long been devoted to their specialties into contributing to a generalized course which included not only their specialty but the specialties of others. The effect upon the faculty in general was eminently salutary.

Still another recommendation of the Commission was to the effect that the Chancellor should be relieved of many of the detailed duties which devolve upon such an office so that he might be free for concerning himself with the major issues of educational policy and public relations. To this end it was advised that an executive secretary for the system be appointed. "This officer, properly trained in educational and statistical techniques, should be charged . . . with the duty of assembling, analyzing and interpreting the regular and special reports of the operations of the several branches of the university system so as to make continually available in proper form for the Board of Regents, that general information and other specific data upon which the Board may base its actions." The present speaker was selected for the office and, in addition, was charged with the duty of supervising examinations and personnel.

It is only fair to say that no group has ever been more earnest or honest in attempting to carry out the provisions and recommendations of a survey as has the Board of Regents of the University System of Georgia.

To a large extent, the remaining part of this brief talk will be concerned with the program at work; and toward the close, mention will be made of the significance of the work as it is related to the Committee on Educational Testing of the American Council on Education.

The program at present is triangular, one leg of the triangle is concerned with testing and measuring students; another with health; and a third with surveys of community

needs and the absorptive power of communities with reference to professionally and semi-professionally trained people—the products of higher education.

During the past year, examinations were prepared in all of the survey courses save in the social studies. These examinations, given at the ends of quarters, were of the short-answer type and made up by committees of the faculty who were specialized in the content to be tested. Statistical interpretation of the data and recommendation for their use with reference to personnel records and the like, were handled by the divisional heads and the executive secretary. Percentile scales were run for each of the tests.

In the fall of the present year—1935, all entering freshmen in the university system and approximately two-thirds of those entering private colleges, were examined during the first week of college on a battery of five tests: the American Council Psychological Test, English, World History, General Mathematics, and General Science. Comparable forms of these examinations (prepared by the Cooperative Test Service) will be administered again at the end of the sophomore year; and the data from both batteries of tests will be plotted on a psychograph for each student so that his counsellor may have available, at the time when senior college is the issue, a record of the student's intellectual growth. On the same chart will be recorded in like manner a record of the student's performance in the survey courses. In the private colleges, however, the curriculum of the university system is not, for the most part, in vogue, and such data will, of course, be absent from these records.

The second leg of the triangle involves a health program. In sampled units of the Georgia system, students will be examined not only in the usual manner but will be tested for malaria and the intestinal parasites. Treatment of infected students will be carried on under the general supervision of medical experts and the local campus physicians. As soon as possible, the program will be extended to include a study of diet and other factors which may play a significant part in

health status. The most important feature about this program is that it may be linked up through research with the achievement testing program and some of the interrelations between health status and level of intellectual achievement may thus be brought to light, and their indications be put into practice.

The third leg of the triangular program is in a distinctly formative and experimental stage. It is held that a state university system, if it is to be of greatest service to the community, ought to concern itself with a careful study of community life, community needs, and community potentialities. Such information as thus may be gathered should ideally be made to impinge upon curricular offerings and should be used in conjunction with the selection of students for special or general types of training. As a point of departure in this program, surveys were made last year of a sampled number of communities. In many instances, the findings which resulted from such surveys were distressing in the extreme and strongly suggest that a revamping of education in the elementary and secondary levels is desperately needed. For example, the following brief digest of a single survey will do more to illustrate the point than any amount of abstract exposition: In a community only ten miles from one of the state supported junior colleges, are to be found twenty-nine families with a total of one hundred and seventeen children. The heads of these families are listed occupationally thus: twenty farmers, eight laborers, one unemployed. These farmers have been in the community on an average of more than twenty-five years. Forty-eight per cent of the families are provided with no kind of toilet, only one home is screened, five of the families have no water supply on the premises. Only four magazines are subscribed for in the entire community. There is a total of twenty-six books in all the homes. Not a single family owns its own property. None is buying any property. Fourteen are renters; fifteen are share-croppers. Of the farmers, the entire farm equipment averages per family the munificent sum of four dollars!

Or take another case, again predominantly a farming community. Forty per cent of the total land area is under cultivation. Soil erosion is getting in its deadly work, largely because 70 per cent of the farms are operated either by renters or by share-croppers; and 30 per cent of those owning land are absentee owners. Of the seventy families in this locality, only seventeen subscribe for a daily paper. Books average eight to the home. Not a single school trustee has progressed as far as first year high school. The school runs for six and a half months; its library contains six volumes. There are three old maps, but not a globe. Adequacy is observed in but a single instance—plenty of fresh air. The children in the school become progressively more and more retarded as they advance, since they are promoted on the basis of material selected by the teacher and without reference to the specifications for the grade.

The community surveys which began with a notion that the uptake of communities for professional people should be studied, ramified in an unexpected direction. It may be that there is in these side issues, significance which will be more important at the lower levels than for higher education.

This triangular program—measurement, health, and studies of community needs—is a distinct challenge not only to the university system but to the intelligentsia of the state. Fundamental to the whole program are the philosophy and the techniques of measurement. Measurement is the order of the day; without it opinions, judgments, and policies in matters of education and social service are but sounding brass and tinkling cymbal. So far, we are fairly certain of adequate techniques only in the first two legs of the triangle—namely, achievement and health statistics. It is to be hoped that techniques for community surveys will in the near future be refined.

All of this attempt to measure, to get at the facts, to find stable points of reference, is essential to the development of an adequate program. In the program as outlined, two

major lines of research have been converged,—the one, with reference to academic intellectual achievement, the other with reference to health status. The interrelations between these two have yet to be scientifically studied. Once they have been determined, much can be done for the economy of the state, it is hoped. And once social surveys, with their implications, are made of communities, state supported higher education can become genuinely a service enterprise.

The research of the past two and one-half decades in the field of psychology and education has revealed most significant individual differences. In a very real sense, the welfare of the commonwealth will never approximate the platonic ideal until adequate information with reference to individual differences in ability and in interests is made known. As a first step in the procedure outlined above, the American Council on Education, through its central committee on personnel, has contributed an inestimably important point of reference in making available to the colleges of the state, comparable tests in the various fields of study. The various programs which the central committee has instituted in college testing and in testing at the high school level are the most significant points of departure in the matter of techniques now available to the educational world.

F. S. BEERS,
Executive Secretary,
Georgia University System.

The International Examinations Inquiry

INTRODUCTION BY GEORGE F. ZOOK, PRESIDENT, AMERICAN
COUNCIL ON EDUCATION

The second part of this program will, I trust, be at least as enjoyable as the part that has just been completed, and if what we have already had this morning is any indication of the pleasure as well as the profit of what we shall have at this luncheon session I am sure that we will all be very glad to be here. I am personally very happy indeed to be in the capacity of a host cooperating with others in this conference. While the American Council on Education has the honor of serving in that capacity there hasn't been any work to do. It has all been done by Dr. Wood and his very efficient staff.

Two days ago a very good looking man got past my secretary and came into the office. After a word or two of greeting he announced that he had made the most fundamental discovery in the field of education during the last 1,000 years. He then proceeded to say that he had discovered a way by means of which the fundamental characteristics of human beings could be changed. I replied that I was afraid I couldn't believe all that because after all was said and done none of us could do much more than add to what the Lord had given us, and as quickly as I could I dispensed with him and went about my regular work.

There are many people who are primarily interested in helping to shape a new society. I have some interest in that myself, but I myself confess that it seems to me that our new society will evolve out of the opportunities that we give individuals to develop. Sooner or later we merely add up what has happened to individuals and we have our society. That seems to me to be fundamental in the development of a true democracy. We have plenty of opportunity to see what happens in other countries when we proceed from the other theory.

I have been particularly interested in this conference and its work because it seemed to me that the problem of examinations is one of those really fundamental problems in our educational development. We have many smaller less significant problems which are thrust at us constantly. But in looking about the educational horizon for some of those things which are really basic I think one soon comes to the conclusion that there are few, if any, educational problems of greater importance than that of examinations. We have most often considered this problem as it relates to entrance to college whereas it seems evident that it is just as important in several other aspects of education. If one wishes to practice medicine, dentistry, law, or what not, he must not only graduate from a respectable institution, but he must also satisfy the appropriate authorities through an examination which tests his ability and his knowledge in those respective fields of his competence to practice his profession in the community and in the state. In our haste to dispense with examinations in years gone by, educational administrators have largely thrown over the use of examinations in testing competence for entrance into the profession of teaching. I am not at all certain but that with these newer developments in the field of education we ought now to be thinking seriously of the use of examinations for teacher selection purposes and for the transfer of students from one institution to another.

Several years ago there was held at Eastbourne, England, an international conference on examinations sponsored by the Carnegie Corporation. A volume was issued containing the proceedings of that conference. To me it is one of the most interesting volumes that has been issued in the last few years. I am not in any sense of the word an advance agent for the Carnegie Corporation. At the same time those of you who have not seen this volume of proceedings will enjoy it as much as I did. The Carnegie Corporation arranged for a second international conference this last summer. That conference was attended by a number of leaders of education the world around. One may get at the spirit as well as the

organization of foreign education in no better way than to know what went on in that international conference. There was present at that conference our luncheon speaker, and I have, therefore, very great pleasure in introducing a man who can tell you some of the significant implications which came out of this second international conference on examinations. I have the pleasure of presenting Professor I. L. Kandel, of International Institute, Teachers College, Columbia University.

ADDRESS BY PROFESSOR I. L. KANDEL

IT IS a generally accepted fact in comparative education that educational systems, theories and practices are determined by the ethos of the people whom they are designed to serve,—their cultural, social and political traditions, values and aspirations. And yet, there is no country in the world today in which there are not discernible evidences of widespread unrest in education, and the crucial problem in this unrest is how to discover and provide the right education for the right individual under the right teacher. Whatever the backgrounds may be, whether one starts from the Right or Left politically, whether there is accepted a rigid definition of the purposes of education and the meaning of culture or an absence of a standardized currency of educational values, the central and most pressing problem appears to be the same,—the provision and distribution of education consistent with the needs of society and adapted to the aptitudes of those who are to be educated. The problem is not new; Plato struggled with it and within the limits of the psychology of his day attempted to provide a solution for his ideal state. The national systems of education which began to be created early in the nineteenth century solved the problem simply by providing two types of education—one for the masses and another for a select minority. This general form, based on social stratification, was continued and, when the progress of the nineteenth century demanded variation and differentia-

tion, there developed an elementary branch with its ramifications upwards and the secondary branch leading to the universities and professional preparation. Here and there slight and tenuous bridges were thrown across the two systems, over which the ablest could find their way from the lower to the higher branch.

The rapid changes in the social, political, and economic realm which characterized the early years of the twentieth century and whose tempo was quickened by the Great War directed attention to education more intensively than ever before in its history. It began to be generally recognized that an elementary education in itself provides an inadequate preparation for life in modern society; the widespread acceptance for a short time after the War of the democratic ideal brought with it demands for increased equality of educational opportunities; the intensification of international competition brought with it the recognition that more education must be provided; and in those countries which abandoned the democratic ideal the recognition of the value of extended education in the interests both of national welfare and the rapidly increasing body of unemployable youth helped to save the demand for a more generous distribution of education. The result is seen in the slow but inevitable abandonment of the dual system of education—one for the masses and another for the select group—and the adoption of a common foundation on the basis of which differentiated types of postprimary education are to be built.

The American tradition has proceeded on different lines. The nineteenth century opened with the acceptance, at first as an ideal and later as a reality, of the principle of equality of educational opportunity which resulted in the adoption of a unitary, articulated system from the lowest grade of school to the university. It was not, however, until the opening of the present century that the full implications of this ideal were realized. Dissatisfaction with what was described as the domination of college entrance requirements opened the way to greater flexibility in the programs of the high

school, a flexibility which was still further increased by studies of elimination, mortality, and individual differences. The expansion of the high school offerings has proceeded apace and has only served to bring new problems of educational adaptation and adjustment in its train. Apparently something more was needed than the mere provision of an extensive *à la carte* educational menu, leaving the pupil to choose as he pleases.

Thus allowing for the differences in backgrounds and cultural traditions and starting from two extreme points of view the European countries and the United States seem to be converging toward the same problem—the differentiation and distribution of education. The European countries are on the eve of providing differentiated types of schools for differentiated abilities; the United States is confronted with the task of adjusting education to the needs and capacities of individual pupils but within the same institution. The European situation is, however, complicated by two factors which are not as potent and influential as in the United States. The first of these is the jealous respect for a strong tradition of culture and liberal education, which unfortunately no longer exists in the United States. Secondly, the European problem is complicated by what may be called the concept of education for status,—the social and economic valuation placed upon an education which leads to certain preferred occupations and professions and which under present conditions has brought with it overcrowding in the universities and the liberal professions. The problem thus resolves itself in all countries into the necessity of defining and providing the right education for the right individual under the right teacher, and this means, although it is not seen as clearly in some countries as in others, the necessity of devising methods whereby differences in aptitudes may be discovered.

In so far as attempts have been made to discover such differences the sole reliance in the past and with few exceptions in the present has been upon examinations of the tradi-

tional type. Indeed, it might almost be said that if Socrates were to return to earth he might gain the impression that his beautiful statement "The life which is unexamined is not worth living" had been accepted too literally and somewhat extravagantly, at least for that part of mankind which is under educational tutelage. (Lest we in the United States be too complacent on this subject, it may be well to point out that the late Dr. Carl Becker, former Minister of Education in Prussia, stated at the first Conference on Examinations that the number of examinations in Germany, reputedly the land of examinations, "is considerably less than in the United States of America, where students are being perpetually examined.")

It was the realization of this situation which led Dr. Paul Monroe, with his rich, intimate, and unparalleled familiarity with education, past and present, over the greater part of the globe, to recognize the seriousness of the problems involved and particularly through the impact of Western Civilization on the Orient and the Near East. It was through Dr. Monroe's efforts that the Carnegie organizations, and particularly the Carnegie Corporation, interested in problems of an international character, chose as one of the first topics of their attention the subject of examinations. Under the sponsorship of the Carnegie Corporation, Dr. Monroe, as director of the International Institute of Teachers College, Columbia University, was appointed to organize and administer what came to be known as the International Examinations Inquiry.

The first Conference on Examinations was held at Eastbourne, England, in May, 1931, and was attended by delegates invited because of their known interest in the subject from England, France, Germany, Scotland, Switzerland, and the United States. There were twenty-eight delegates in all, a number which made round-table discussion possible. The absence of prepared papers, except some giving general descriptions of the educational systems of the countries represented, conduced to an informality and spontaneity of dis-

cussion which ranged over the whole field of education, general and vocational. To the student who is interested in understanding the educational values of the nations represented I can suggest no better source material than can be found in the eloquent statements reported in the *Conference on Examinations* (Bureau of Publications, Teachers College, Columbia University, 1931). The technician may not learn much from this report about the scientific conduct of examinations, but to the American technician the report can be recommended if only to obtain an understanding and appreciation of the matrix in which the problem of examinations is closely embedded.

The purposes of examinations were succinctly analyzed in the address with which Dr. Monroe opened the Conference. Examinations may be used (1) as a means of instruction; (2) as a form of educational administration; (3) for purposes of admission to various occupations, professions, and government service; and (4) as a means of social control. Three aspects of the problem appeared to dominate the discussion. The first centered round the question of social justice in the distribution of education for the development of individual talent; the second was concerned with the question of the selection and maintenance of an *élite*; the third was devoted to discussions of the meaning of culture, which ranged from the insistence of the French group on the importance of safeguarding *culture générale* against attack to the recognition that civilization is changing and our concept of culture must change with it. From the French point of view it was admitted that some experimentation with examinations is desirable but that ultimately the undisputed ideal must prevail. From the opposed point of view the pithy statement was made by Professor C. Delisle Burns that "One of the worst troubles in the whole examination system is that it has been devised by professors, and the best thing that professors can think of is themselves; they therefore test candidates by what are tests of competence for professors, but not for bankers and other persons." Changes are going on all around us, "and we

are still clinging to the old idea that we must produce persons and test them in the old way."

If little was contributed, except by Professors Thorndike and Judd, on the technical aspects of examinations, it may be said by way of general summary that the discussions at the First Conference helped to make clear that the problem of examinations can only be attacked after the purposes of education, its meaning and organization, have been clarified. If one may hazard an opinion in the light of the development of examinations and their substitutes in this country it is along these lines that the method of approach at the First Conference has a distinct contribution to make to American educators. It is significant that at no time in the seven sessions of the Conference was a voice raised in favor of dispensing altogether with examinations of some kind. The crux of the problem was stated by one of the delegates from Scotland, where greater progress has been made than elsewhere, largely through the efforts of the Scottish Council for Research in Education, in the use of scientific techniques of measurement. Education authorities in Scotland were already convinced that the existing system of examinations is unsatisfactory, but the question which they put is "What have you by way of substitute?", a question to which a small group in Germany was already beginning to provide an answer in the development of examinations that are both just to the pupil and have predictive value.

The value of the Conference is best described in the words of one of the distinguished delegates, Sir Michael Sadler, who said:

Never in a long life have I been to an educational conference more interesting or more impressive than this. We have met here from several countries and speak different languages and yet understand one another so perfectly that we might come from different states in one union. We are facing the same problem. We cherish the same hopes. We are all thinking of the future of humanity. The differences of language have simply added to the richness and interest of the discussion.

The result of the Conference was the unanimous recognition that here is a problem which is at once technical and, even more important, social in its ramifications, that it cannot be attacked from a unitary point of view, that public opinion on the subject has not reached the same stage in all countries, and that each country must develop its own resources and methods for investigating the problem. To this end national committees were appointed in each of the countries represented at the Conference to study the problem in ways most appropriate to their own situation. The further continuance of the Inquiry was made possible, as was the first Conference, by the generosity and interest of the Carnegie Corporation and the Carnegie Foundation.

National committees were accordingly organized in England, France, Germany, and Scotland. In Switzerland Professor Bovet undertook the preparation of a study of the long history of the examination of army conscripts. The committees in England and France had greater obstacles to overcome than the Scottish and German committees. The Scottish Committee continued its studies along lines already initiated by the Research Council. Germany was already confronted by a very practical and very urgent situation; secondary schools and universities were overcrowded, the university authorities professed to see a lowering of standards in the post-War students, and the professions were also overcrowded; and the German Republic was in any case more ready for experimentation in education than either France or England. In the latter country Sir Philip Hartog, the Director of the Inquiry and long a critic of the system of examinations, in seeking the cooperation of one of the universities in the investigation was met with the statement, "We think that here we know everything there is to be known about examinations"; in the former M. Desclos, the Director of the French Inquiry, attributes the failure of more than 2,800 out of 3,000 teachers and administrators to reply to a questionnaire on examinations to the fact that they have no doubt as to the impeccability of the findings of the examiners, who can be trusted to continue their work to the satisfaction of all concerned.

The task of the English and French Committees was accordingly defined by the situation; they had to prove in the most accurate and convincing manner possible the unreliability of marking in the existing practice of examinations in order to shake the prevailing complacency and before further investigations looking to reform could be undertaken. It was already evident at an Interim Conference of committee directors, held in London in June, 1933, that the members of at least one of the committees had themselves already received a greater shock to their complacency than they had expected in 1931, a fact which only strengthened their resolution to probe further. It may be claimed that the English and French Committees were only repeating studies and techniques on an aspect of examinations already closed and settled in the United States from the scientific point of view nearly a generation ago. This objection only brings into the foreground the fact that the educational problems can only be solved in the light of local cultural and other backgrounds.

The final reports of the investigations which had been conducted over the previous four years were presented at the Third Conference on Examinations held at Folkestone, England, in June of this year. The same countries were represented as at the First Conference with the addition of observers invited from Finland, Norway, Sweden, and Australia. The Third Conference differed from the First only in the fact that prepared reports were presented; as at the First Conference the advantages of intimate discussions and questions from a variety of backgrounds and familiarity with the issues involved again helped to clarify the problems raised.

The English Committee had devoted its investigations to testing concurrences of a number of independent examiners and of independent boards of examiners in marking the same set of papers; the purpose of the second study was to test the claim that individual idiosyncrasies of examiners are ironed out when the marking is done by a board. As compared with earlier experiments conducted in this country the papers used in the investigations were actual papers written in actual examinations. These papers covered a wide range of exami-

nations, both qualifying and selective, and included papers written in the eleven plus or special place examination, a college scholarship examination, university honours examinations in history and mathematics, and secondary school certificate examinations in Latin, French, chemistry and history. An investigation was also conducted on the method of interview on the model of the Civil Service Examination. Examiners were selected from actual examining panels, were paid, and were given all the time that they needed. Every known variation of the examining technique was used in order to insure accuracy—the same system of marking was employed as in the original examination; the same examiners marked the same papers twice at an interval of a year; two groups of examiners were employed on the same papers; general standards and details of marking were discussed in two groups of examiners under the direction of chief examiners, trial markings were submitted to criticism; an English essay was marked once by general impression and then by details; and numerical and literal marks were given.

The French Committee proceeded on its investigations along much the same lines but concentrated more specifically upon the most crucial of French examinations—the *baccalauréat*, which comes at the close of secondary education. One hundred papers in six of the subjects of the examination—French essay, Latin translation, English, mathematics, physics, and the dissertation in philosophy—were each submitted to marking by five examiners. The papers were marked in the customary way and each examiner handed in reports on methods of marking employed, qualities and defects looked for, their relative importance, and the proportion of the total marks allotted to the several qualities discovered. In another study a French essay was marked by 76 examiners.

The detailed results of these investigations cannot be announced in advance of their publication by the committees concerned. Anyone familiar with similar studies will guess correctly that there was discovered a great degree of unreliability in the marking, that the fate of candidates in examinations may

differ with the different examiners, that on the whole candidates are exposed to the unfairness of chance. A number of side issues emerged in the discussion of the results—What is the pedagogical function of examinations? Do examinations exercise any effect upon the work of the schools? Is the marking of an examination an art or a scientific process? What would be the effect of new methods of examining upon the traditional values in education? Can examinations of any kind succeed in measuring all the qualities of a good education? How can justice be done to pupils of different abilities either by existing or by new methods of testing? It is obvious from the discussions at both the First and Third Conferences that the subject of the Inquiry transcends the mere question of new devices and techniques of examination and that the technician must work in close cooperation with the educational theorist and statesman, and that even then the question, as seen by the French and English educators, still remains whether what is most valuable in education can be measured. It is for this reason that the English Committee became interested in studying the method of the interview and the French are planning to undertake a study of their oral examinations, as well as to strengthen the results so far obtained by investigations into the examinations for the *certificat d'études primaires* and for national scholarships. The English Committee began its investigations with some anticipation of the results that would be reached and with the intention of expressing these results in such a form that they would carry conviction to other educators and to the public. The French have emerged from the Inquiry conducted up to the present "more modest and less dogmatic" about the impeccability of their examinations.

The Scottish Committee addressed itself to a somewhat larger question within the scope of the Inquiry. Before the Inquiry was initiated the Scottish Council for Research in Education had already undertaken two inquiries into teachers' estimates and the time devoted to examinations which were completed and published in 1932. Two new studies were undertaken, the one prospective, the other retrospective. The

prospective inquiry consisted of a mental survey of Scottish children, representing a complete age-group of 87,498 children or practically all the children in Scottish schools born in 1921. The test used was Professor Godfrey Thomson's Group Intelligence Test. Of the total group 1,000 children, constituting a representative sample of the whole age-group, were further tested by means of the Terman revision of the Binet-Simon scale. The results of this study were published in 1933 under the title *The Intelligence of Scottish Children: A National Survey of an Age-Group*. The Examinations Inquiry Committee decided to keep in touch with the thousand children who had been tested individually and to follow them up through their school careers and, if possible, beyond. Such a follow-up study, somewhat similar to the Pennsylvania Study, will, it is hoped, result in discovering how far the promise at the age of eleven was fulfilled in their later careers.

The retrospective inquiry undertook to investigate the prognostic or predictive value of the examination for entrance to the university. The group investigated consisted of 472 students, men and women, who had entered one of the universities in 1928. The data available consisted of teachers' and principals' estimates, the marks obtained in the Leaving Certificate Examination, an external examination conducted under the auspices of the Scottish Education Department, marks given by professors in university class examinations, and marks obtained in the final examinations for a degree, either ordinary or honours. Only a few of the results can be given here: the principals' estimates were, on the whole, higher for those students who obtained honours than for those who did not, and were higher for students who obtained first class honours than for the second class honours, and so on. The composite marks in the Leaving Certificate Examination were in the same way predictive as between students who took honours or ordinary degrees. Finally, there was found a lower correlation between teachers' estimates and Leaving Certificate marks in certain subjects than between class and degree marks obtained in the university. The results of this study

have also been published under the title, *The Prognostic Value of University Entrance Examinations in Scotland*. Evidence of the interest in the two Scottish studies is indicated in the cooperation of every education authority and private school, the central authority and the university. It is hoped through these channels to influence public opinion on the one hand and to see that no pupil of ability fails to receive the education appropriate for him.

Of the German committee only one representative attended to present the final reports of a series of studies. As in Scotland a group of educators had already begun to investigate the problems of examinations before the International Inquiry was instituted. The study of these problems had been stimulated in the German Republic by the need of discovering some adequate methods of selection for admission to the secondary schools, on the one hand, and by the tendency of German youth to crowd into the universities in the intense struggle for economic survival. The problems were as much sociological as they were technical. On the technical side the investigations at the stage of admission to the secondary schools were devoted to studies of the prognostic values of various methods of selection—teachers' estimates, school marks, entrance examinations, psychological tests. The general results of a series of investigations conducted in Berlin by Bobertag and Hylla and in Bremen by Valentiner produced a number of conclusions which had already been anticipated in similar studies in the United States: Teachers' estimates were in general inconsistent, but might be improved somewhat by special courses to teachers; the prognostic value both of school marks and of marks in entrance examinations was slight and unreliable; intelligence tests had a higher prognostic value than any other measure; and a combination of the three methods produced the best results. One investigation attempted to discover the qualities necessary for success in secondary education and resulted in the conclusions that intelligence was a more important factor than social or emotional qualities. Another study on the marking of an essay, while it

showed agreement among several examiners on the very best and the very worst, revealed great variation between these points. All the studies have been published under the title *Schülerauslese* by O. Bobertag.

The sociological aspects were inherent in many of these studies and were the objects of one in particular. They constituted the main purpose of an investigation conducted by Dr. Robert Ulich and Dr. Erich Wohlfahrt, who undertook to show the relations between the social origin of students, the types of secondary schools selected, their professional aims, and their success in the courses undertaken. Social origin, as expressed in differences of cultural background, affected both selection of schools and careers and educational success. The general conclusion of the authors was, however, that there is no justification for the educational segregation of youth according to their social origin, and that from the national point of view methods must be devised whereby the ablest students of all classes, some stimulated by their cultural background and others by the will to rise socially, be selected to preserve the "hereditary culture carefully nursed and maintained for generations"; otherwise a nation is in danger of cultivating mediocrity. The study further revealed, both from the sociological and educational points of view, that the different types of secondary school courses differ in quality and standards and that the same is true of different departments in the universities. An analysis of examination results at the university level showed that the stricter selection was made in departments conducting fewer but more comprehensive examinations than in departments with frequent examinations during the course. School records were found to be unreliable as prognostic measures of success in the university; satisfactory results were attained by a combination of school records and selection by expert committees which took into account not only intellectual achievements as shown in school records but supplemented these by judgments on the whole personality of the candidates. An analysis of the investigations in this field undertaken under the auspices of the *Studienstiftung des Deutschen Volkes*, an

organization established after the War to provide help for highly gifted students. The studies of the *Studienstiftung* centered around the problems of overcrowding of students in the universities and the liberal professions, the consequent competition and maladjustments, and the urgent need of adequate measures of selection and distribution of students. That these problems are just as pressing under the Nazi as under the Republican regime is indicated by the law of April, 1933, and subsequent decrees, and by an investigation undertaken by the Minister of Education in Saxony, published under the title *Geist und Torheit auf Primanerbänken*.

The American educator may be tempted to ask what contribution can the studies and research carried on in foreign countries make to the solution of his problems. On the technical side he may claim that he knows all that there is to know about the unreliability of the traditional examinations and their marking; he has in the main passed the stage of inquiry reached by the foreign educators and has already made considerable progress in the development and elaboration of more or less reliable and valid substitutes; he has little to learn perhaps about the provision and organization of education because the ideal of equality of educational opportunities has for long been the basis of the American system of education. And yet one may answer that our own problems become clearer in the light of the discovery of similar problems elsewhere. The countries discussed in this article, and many other countries, are discovering that the crucial problem is not primarily one of selection but of the distribution of education according to aptitudes and abilities. Despite the great amount of work done on the technical side in the United States, one may hazard the statement that it has not been guided by a thorough recognition of purposes. The work in the United States has been influenced by a desire to discover those studies by which an individual is best capable of profiting. The European countries are just as much interested in this phase of the problem, but as they dig deeper into it, they realize that over and above individual differences of aptitudes and needs

and urges the most important task still remains the definition and preservation of educational values. The one solid contribution which comes out of the European inquiries is that the technical, psychological, statistical studies of examinations are as much concerned with the needs of society as of the individual, and that these studies must remain meaningless unless they are guided by a philosophy of educational values and purposes.

The statement was made earlier that the problems here discussed are not new. They were recognized by Plato; in the seventeenth century in the infancy of modern science the possibilities of applying scientific methods to the study of the human being was already envisioned. Bishop Thomas Sprat, the first historian of the Royal Society of London for the Improving of Natural Knowledge, after describing what science might ultimately contribute to human welfare, wrote in 1667:

In men, may be consider'd the *Faculties*, and operations of their *Souls*; The *constitution of their Bodies*, and the *works of their Hands*. Of these, the *first* they omit: both because the knowledge and direction of them have been before undertaken, by some *Arts*, on which they have no mind to intrench, as the *Politicks*, *Morality*, and *Oratory*: and also because the *Reason*, the *Understanding*, the *Tempers*, the *Will*, the *Pas-sions* of Men, are so hard to be reduc'd to any certain observation of the *senses*; and afford so much room to the *observers* to falsifie or counterfeit: that if such discourses should be once entertain'd; they would be in danger of falling into *talking*, insted of *working*, which they carefully avoid. Such subjects therefore as these, they have hitherto kept out. But yet, when they shall have made more progress, in *material* things, they will be in a condition, of pronouncing more boldly on them too. For, though Man's *Soul*, and *Body* are not onely one *natural Engine* (as some have thought) of whose motions of all sorts, there may be as certain an accompt given, as of those of a Watch or Clock: yet by long studying of the *Spirits*, of the *Bloud*, of the *Nourishment*, of the parts, of the *Diseases*, of the *Advantages*, of the accidents which belong to *humane bodies* (all which will come within their Province) there, with-

out question, be very near guesses made, even at the more *exalted*, and *immediate* Actions of the *Soul*; and that too, without destroying its *Spiritual* and *Immortal* Being.

And Socrates in his last hour faced his fate without flinching because "Above all, I shall be able to continue my search into true and false knowledge; as in this world, so also in that, I shall find out who is wise, and who pretends to be wise and is not." (Jowett's translation.) The question still remains whether, in the words of Bishop Sprat, in an inquiry into the immediate actions of *Soul*, this can be done "without destroying its *Spiritual* and *Immortal* Being," or, in modern terms, whether the search for the right education for the right individual under the right teacher by old or new type examinations can be conducted without destroying educational values.

It is at this point that the work of the Educational Records Bureau and the Cooperative Test Service derives its significance and meaning. This work is not an attempt to dilute standards or values, but, to the degree that measuring instruments have been perfected, it represents a genuine and sincere effort to discover the real aptitudes of the student as an individual and to carry him along the lines on which he is best fitted to advance. It does not seek to discard educational values, but aims, so long as these are generally accepted, to develop them in their essential richness to the extent that a student can profit from them. In so far as these efforts succeed, they will tend to reduce, and perhaps eventually to eliminate, much of the tragic waste which still exists in education.

The acknowledged and proved existence of individual differences is frankly accepted and a method is provided by which they can be met more effectively. To accept as a principle that *non omnia possumus omnes* does not simplify the task of educators, but it places the onus where it belongs—on the recognition that one of the most serious responsibilities confronting educators today is that of guidance, which is possible only with the fullest knowledge over a long period of the potentialities of each individual to be educated. To the best of my knowledge neither the Educational Records Bureau nor

the Cooperative Test Service nor other organizations engaged in similar work expect to answer all the problems of education; in the minds of enlightened leaders there is no suggestion that testing is a substitute for good teaching or that new type tests provide a substitute for the best in the old type, such as the essay. Nor does the work of such organizations seek to compromise with educational values by positing some miracle of "thinking" without the wherewithal with which to think, nor does it seek to set up a fallacious distinction between the "how" and the "what" of education, but recognizes that in true education these cannot be separated. No one would claim that this work provides the ultimate solution of all problems in education, but it is a step toward discovering an answer to many of the problems raised at the Conferences of the International Examinations Inquiry.

I. L. KANDEL,
*Professor, International Institute of
Teachers College, Columbia University.*

DISCUSSION

DR. ZOOK: I cannot refrain from calling your attention to the fact that we have three distinguished visitors from abroad with us. It is a pleasure to extend to them our hearty welcome. When I learned that one of these three welcome guests comes from the University of Adelaide in Australia, I thought of a book that had been written by an Australian some years ago after visiting a number of our colleges and universities. Everywhere he had gone, he said, he had heard a great deal about student activities, but nowhere was study or the pursuit of knowledge considered as a student activity. In other words, our foreign critics are quite polite but they make their meaning quite clear. I am sure that these gentlemen will find in this country a great many things not to do. I should like at this time to introduce Professor J. McKellar Stewart of the University of Adelaide.

PROFESSOR STEWART: If I followed my likes I would re-

main silent, but it would be ungracious on my part not to respond to your friendly invitation to take part in the discussion. Although Australia is geographically enormous, it is extremely isolated and on that account I think there is a lack in matters educational; a lack which we are trying to overtake by sending people abroad.

We too have our own problems of examinations which I cannot take time to describe here. The general direction of the examination process in Australia comes from the universities. The demand comes from the people. The examinations used are made under the direction of the university professors. The situation is both hopeful and dangerous. Dr. Kandel says the only thing a professor sees that is good is a professor, but I think the good thing that he sees is the value of his own subject. There is a danger that the professor will try to shape educational courses as if everyone were going to the university. The charge has been made that the universities have too much control over the whole educational process in the examinations. Our problem is to free the educational process to work out its own salvation on its own initiative under our direction and control. The problem of examinations as we see it is exceedingly important, but our main problem is in the teachers. To put it in one sentence, our problem is to fit the teacher to be free.

DR. ZOOK: I should like to introduce to you also Professor E. Salter Davies of Kent, and Professor G. T. Hanken of London.

I wish to express my own appreciation of Dr. Kandel's scholarly and stimulating address and to assure him that it has been both very interesting and exceedingly helpful to all of us.

The First Years of the Eight-Year Experimental Study

INTRODUCTION BY JOHN A. LESTER, FRIENDS COUNCIL
ON EDUCATION

Before presenting Mr. Aikin, I should like to make two brief remarks, one about the Commission and one about the director of the eight-year experiment. It seems to me that the Commission of the Progressive Education Association on the Relation of School and College, which began its work three years ago, had two concerns. The first was that the secondary schools themselves should have greater freedom in deciding how to meet the needs of secondary school pupils, and the second was that a curriculum that might have been suitable in 1890 when five per cent of the entire school population were in secondary schools was not suitable in 1935 when perhaps seventy per cent of the secondary school population are in secondary schools. They were not concerned in making work easier or mastery less difficult; they were more concerned with hard work and mastery of all materials so long as they came in the course of broad and meaningful secondary school activities.

The second remark has to do with the director. The first speaker was there when the game was started, when the quarry was sprung, and he is still at the front. It has been an extraordinarily difficult job to induce 32 schools with varying educational tenets to march along in the pursuit of common aims. It is one which has required a great deal of patience, labor and tact. As I have observed Mr. Aikin in many critical situations I have admired the tact which he has displayed.

I have great pleasure then in calling upon Mr. Wilford M. Aikin, for many years headmaster of the John Burroughs School and now of Ohio State University, who will speak to you on "The First Years of the Eight-Year Experimental Study."

ADDRESS BY MR. WILFORD M. AIKIN

THE first years of the eight-year experiment have been characterized by confident assurance and puzzled questioning; clear thinking and confused fumbling; fresh, vigorous attack upon our problems; straightened, constricted, ineffective, tradition-bound attempts to meet the challenge which our new freedom has brought.

As most of you know, approximately 300 colleges are co-operating with thirty good secondary schools in an attempt to improve the character and quality of the work of the schools and to coordinate more effectively the efforts of the schools and higher institutions. The schools began their new work two years ago and the first class, numbering about 1,200 students, will enter 140 colleges under this plan in September, 1936.

A year ago I reported to this Conference that one result had been achieved and suggested other possible outcomes. The challenge which has come to us through participation in this Study continues to be extraordinarily stimulating to the growth of our teachers. Each school has assumed the responsibility for its own program with whatever help the Directing Committee can provide. We have, perforce, been re-thinking secondary education. The searching mind and heart which has resulted and which will continue is good for us all. We have been shaken out of our complacency and some have discovered unused capacities for constructive thinking. Happily, there is evidence to indicate that this result has not been confined to the schools included in this Study. The very fact that a group of schools has been set free to undertake this task has been a stimulus to many, who could not be included, to attack this problem, each in his own school community. A steady stream of letters of inquiry and suggestion from hundreds of school men implies widespread interest in this Study and the improvement of the secondary school.

These possible outcomes were suggested:

I. We may help in bringing about a more satisfactory

relationship between schools and colleges. (We have found most of the colleges eager for improvement at that point. There is a desire on the part of college officers to discover more satisfactory ways of bridging the gap between schools and colleges, and of adapting their work, especially in the first two years, to the needs of the students as they come from the schools.)

II. We may devise more significant reports to colleges upon the student's secondary school experience and his fitness for college work.

III. There seems to be possibility of development of additional plans for continued study of the student after he enters college and for evaluation by the college of its own work with him.

IV. It may be demonstrated that the disciplines considered necessary for satisfactory college work can be secured for many through work in fields other than those usually prescribed.

V. We may discover how to prepare the student more adequately for his best work in college and, at the same time, we may learn how to lead him more wisely, in secondary school, into those fields of study and experience which give meaning and significance to school life now by meeting his present as well as his future needs.

VI. There may be further stimulation of schools and colleges to critical self-study and to constructive changes in materials of instruction, areas of interest and methods of teaching.

VII. We may discover how to achieve greater mastery in learning through the acquisition of such techniques as reading with speed and comprehension, observing accurately, organizing and summarizing information; ability to work with many kinds of materials; capacity to see facts in their relationships; ability to state ideas clearly; techniques essential as a foundation for later advanced study.

VIII. Possibly some of us will find ways of breaking down the barriers which artificially and harmfully separate sub-

jects of study and the work of teachers in various fields, and find ways of making breaches in the walls which have often so separated school from community life as to make school life sterile and relatively insignificant.

IX. We may also gain clearer insight into the importance of the general student life and activity in the school community and how to study and use the school community for experience in the solution of problems of group living.

X. Perhaps we shall be able to make provision for guidance with reference to enlightened citizenship and to further training in college and professional schools. We do not hope to perfect the curriculum or the instrumentalities for guidance. We do hope to make some actual improvements in the work of the participating schools, to cultivate in college and in the public open-mindedness and hospitality toward experiments in secondary school work, and to inaugurate in secondary schools the continuing study of the adaptation of the curriculum to changing times and to the needs of the individual.

May I now discuss some of this last year's developments and indicate the tendencies of the changes taking place in our thirty schools.

A year ago we thought that we might help in bringing about a more satisfactory relationship between schools and colleges. We are quite sure that some progress in this direction has been made. When we learned that the members of our first class had chosen 140 different colleges, we asked representatives of those colleges to meet with the heads of our schools in eight regional meetings as follows:

- The California colleges at Los Angeles and Berkeley;
- The Mountain State colleges at Denver;
- The Central States colleges at Chicago;
- The South-eastern States colleges at Washington;
- The Middle States colleges at New York;
- The New England women's colleges at Northampton;
- The New England men's colleges at Providence.

The representatives of the colleges were presidents, deans, and admissions officers. At each meeting the day was spent

in informal discussion of mutual problems. The heads of the schools presented the innovations in their institutions and invited discussion and criticism. Dr. Ralph Tyler, who is in charge of the evaluation of our project, presented that phase of the work and invited comment. Dr. Eugene Smith, chairman of our Committee on Records and Reports, presented our plans for providing significant and abundant information concerning each student as he becomes a candidate for college and invited the criticism and help of the college representatives. These three major topics were discussed freely and at length. There seemed to be general approval on the part of the colleges of the developments in the schools and of the serious attitude of the Committee toward its responsibility for definite measuring of results. And the school men and women found the conference decidedly helpful. There was agreement that the schools should send full information concerning candidates approximately a year in advance of their coming to college and invite the counsel of college officials concerning the candidates' senior year program in school.

As a result of these regional meetings, school and college representatives know each other better, are cooperating more fully and effectively, and a mutual feeling of confidence and good will has developed. We have reason to expect that this will increase as the work goes on. We were much gratified at the friendly and generous attitude of the college representatives. In seven of the eight regional meetings, some of the more progressive college deans pointed out that the new developments in the secondary schools challenge the colleges to re-think the problems of the first two years of college. If students come from these schools better prepared for college, if they come with more definiteness of purpose, and more intelligent and effective habits of work, the college must be prepared, said the deans, to meet the needs of the students more adequately and effectively. Many of them have asked us to call them together in conference this year to consider this problem. This will be done. The deans and admissions

officers of the colleges to which ten or more of our students are going next year will meet for this purpose in the course of this year.

We said a year ago that we may be able to devise more significant reports to the college upon the student's fitness for college work. During the past year that phase of our project has received much attention and the schools have made progress in developing reports which we think will give the colleges more abundant and significant information concerning the candidates, not only for purposes of admission but also for purposes of guidance after the student is admitted to college.

A year ago I stated that we hoped to cultivate in college and in the public open-mindedness and hospitality toward experiments in secondary school work, and to inaugurate in secondary schools the continuing study of the adaptation of the curriculum to changing times and to the needs of the individual. Certainly open-mindedness and hospitality toward experiments in secondary school work are growing in many colleges and communities. Perhaps this is partly due to the influence of our study but doubtless much of it is due to a widespread conviction that this is a sound and effective procedure for the improvement of American education. It is quite clear to us and to many others that the processes of a democratic society involve continuing study of the adaptation of the curriculum to changing times and the needs of the individual. This particular Study in which we are now engaged is to end in 1941, but the movement which it represents will not end then. We hope to see much more clearly than we do now the major responsibilities of our schools and colleges and we hope we shall be able to evolve better methods of teaching, more significant curriculum content and more effective organization. But we shall not have reached the final solution of many of these problems. This kind of Study must go on continuously in the spirit of the democratic tradition of American education.

Although it seems that we have made some progress during

this past year, in the fields which I have mentioned, and in others which I shall not take time to suggest, we are struggling with tasks which we find very difficult. We realize that we need to know more about young people, their real interests and needs, if we are to serve them better. We do not yet know them as we should. We realize that we need, as teachers and administrators, to understand more clearly the profound social and economic problems of modern life if we are to serve these young people wisely in preparing them for participation in the work of their generation. In our schools we need still further clarifying of our purposes. (We need to bring them into line with what we know of the nature of children and the needs of society.) We shall then need to know better how to change our curriculums in order to achieve our objectives more satisfactorily. At this point we are clearly not effective. We are fumbling and groping for ways and means of making the curriculum more meaningful to the students and more directly related to the aims of the school. We recognize the need of new curriculum materials, adapted to the needs of students of varying stages of growth. We are trying to free our minds from the traditional patterns of thinking about education and to find a fresh and invigorating point of view. This is one of our most difficult tasks. We are so accustomed to thinking of school work in terms of subject matter, courses, credits, and organization that many of us find it almost impossible to see with unobstructed vision this living, growing boy entrusted to our care, and to face his problems with him in order that we may be of greater service to him.

In our schools, the teachers are encountering the difficulty of finding time to plan and to work together, to write down significant records of the individual's growth, and then to use these records wisely in planning his work. These and many other problems we have not yet solved but we hope, as the Study proceeds, to make some progress toward their solution.

We feel our responsibility deeply. As I indicated a year

ago, one of the most serious responsibilities is that of evaluation. We take the point of view that measurement of results is most significant when it is undertaken with reference to the purposes of the work. We are constantly trying to define those purposes more clearly and exactly. Last week the Directing Committee and the heads of schools met in conference for three days for this specific purpose. At this conference we discussed the directions of change in administration, in the curriculum, and in methods of teaching which we have found in our schools. One comes away from that three-day meeting realizing that these schools are vividly aware of their responsibility for leading their students into some understanding of the major elements of modern life and for creating in them genuine concern for the common welfare.

A year ago I made the happy announcement that Dr. Ralph Tyler had joined us in our project to undertake the responsibility of evaluation. We were then assured of his services for one year. They have been most valuable to all the schools and we are all delighted that a further generous grant from one of the Foundations assures us of his continued collaboration for three years more. In visiting each of the schools last year, Dr. Tyler insisted upon clear, definite, and understandable statements of objectives. This challenge has been fairly well met by the schools and he is now in the midst of assisting them in using available means of measuring results and in devising new ones for fields in which satisfactory measures of growth are not now available. I take unusual pleasure in presenting my friend and colleague, Dr. Ralph W. Tyler, who will speak next on the program.

WILFORD M. AIKIN,
Ohio State University.

Defining and Measuring Objectives of Progressive Education

LAST year, this conference considered the general plan for the program of evaluation in connection with the Eight-Year Study, at the same time emphasizing the significance of a careful program of appraisal. I prefer to use the terms appraisal or evaluation, rather than measurement, because the latter may imply only very refined and exact assessments. Evaluation is needed by the schools to discover the points at which difficulties are encountered so that modifications or revisions may be made, and to determine the effective aspects of the program which result in noteworthy achievements. The schools need a more comprehensive means of evaluating the progress of pupils so that counseling and guidance may be more effectively and wisely done. Those schools fortunate enough to have this opportunity for pioneering owe an obligation to schools generally to report the results of these experiences in as careful, impartial, and accurate terms as possible.

The general procedure proposed for this appraisal program was also outlined last year. Recognizing that each of the thirty schools in the study is being given freedom to develop an educational program which offers greatest promise under the local conditions for the pupils in that school, no single set of tests for all schools was considered, but the plan of evaluation was set up to provide a means by which each school could appraise its work in terms of its purposes. Furthermore, since these schools are concerned with the development of boys and girls in all of the major aspects of life the evaluation program was conceived not merely as the giving of paper and pencil examinations but as a means of collecting all important, pertinent evidence about the development of these boys and girls.

The major task foreseen was the evolution of appropriate appraisal instruments for certain significant aspects of pupil

development which are not covered by the available tests. We proposed to work cooperatively with the staffs of the thirty schools to develop instruments by means of which evaluation of these less tangible objectives might be made. The present paper is a progress report indicating the steps which have been taken in the evaluation program proposed last year and describing the tasks now under way.

The first step taken last year was to ask each of the schools to formulate in clear and understandable fashion its major purposes, that is to say, the school was to indicate what kinds of changes in its pupils the new educational program was expected to facilitate. These statements represented the objectives of the schools as they were conceived at the time the formulations were made. Each school was then asked to go through the list of objectives and indicate what procedures it was then following, if any, for obtaining evidence of the degree to which that objective was being realized. In the case of some objectives, a school could indicate clearly a satisfactory means which it was then using to obtain evidence relative to the attainment of that purpose. For certain other objectives the school stated that no satisfactory means of evaluation were being employed but that it knew of certain methods which could be used. In the case of certain other objectives, the school explained that it did not know of any satisfactory and practicable method by which the desired evidence might be obtained. These last represented objectives for which new instruments of evaluation had to be developed. There were many of these so that an attack could not be made on the construction of all of the needed instruments at once. From these objectives, five were selected for study because they were mentioned frequently by the schools and because they represented various aspects of pupil development. For each of these five areas cooperative inter-school committees, made up of interested teachers from those schools striving for that objective, were formed to assist in developing instruments of evaluation. One committee was concerned with the evaluation of interests and attitudes, a second with the

appraisal of work habits and study skills, a third with the evaluation of abilities involved in interpreting data, a fourth with the appraisal of abilities involved in applying facts and principles to concrete situations, and a fifth with the evaluation of sensitivity to significant problems. These are not all of the objectives needing appraisal but they are highly significant points of first attack. New committees will be formed and new areas attacked as rapidly as the staffs are able to devote the necessary time and energy.

The inter-school committees have several functions. In the first place, their task is to clarify the meaning of these objectives. Many of the statements of educational purposes are vague and might mean different things to different people. Before any instruments of evaluation can be developed it is necessary to understand the meaning of these objectives, to be able to recognize the kinds of behavior which the school is trying to develop in order that we may find effective ways for obtaining evidence of these types of behavior among the pupils. Hence, the first sessions of each inter-school committee were devoted to defining the objective in understandable terms. Indirectly, this serves another function. It broadens the vision of the various schools cooperating. As the representative of one school listens to the comments of other schools as to the meaning attached to this statement of objectives, each school gets a broader vision and perhaps a better conception of desirable educational purposes.

The task of clarifying educational objectives is more difficult and important than we had, at the outset, realized. In the first place, the terminology typically used in stating objectives is surprisingly vague and the meanings attached to many of these statements vary markedly among the schools. In the second place, many statements of objectives are expressed in terms of the duties of the school rather than in terms of the changes expected in pupils. Obviously, the latter is the type of statement essential for appraisal, since the task of evaluation is to determine the degree to which these desired changes are taking place. To express these original

statements in terms which would be understood clearly by all the schools concerned and to define these objectives by describing the kinds of changes desired in pupils demand thoughtful discussions, questioning, wording and re-wording.

For example, the phrase "sensitivity to significant problems" was discussed, worded, reconsidered and re-worded until it was finally clear that the schools were using this phrase to mean that they hoped to develop pupils who are aware of significant problems of modern life, who are able to analyze these problems to indicate the more definite crucial difficulties involved, who are really concerned in trying to help in overcoming these difficulties, and who develop a plan of action for themselves with reference to each problem which is appropriate for their abilities and opportunities. These four types of behavior are more clearly understood than the original phrase and the problem of evaluation is clarified. To appraise "sensitivity to significant problems" we must collect evidence of the degree to which pupils are aware of significant problems, are able to analyze them, are concerned in helping solve them, and are able to plan appropriate action.

As another illustration of the value of definition of objectives, the Committee on Work Habits and Study Skills found it necessary to extend the usual conception of study skills in order to make clear the investigational skills which these schools are trying to develop in their new work. By this objective, the schools mean that they are trying to develop pupils who are able to determine what data are needed to answer important questions, who are familiar with dependable sources of data, who are able to locate the data in these sources, who are able to obtain information from books and libraries, by observation, by interviewing and letter-writing, who are able to distinguish pertinent data from the irrelevant, who are able to organize and present the material effectively. This clarification of objectives shows that the schools need not only reading tests and tests of written expression but also tests covering these other investigational skills.

It is possible to go on at some length in describing this step

of defining and clarifying objectives. These two cases, however, are sufficient to illustrate the need for clarification and the value of the resulting definitions. One other comment should be made. It is very necessary in any such program to obtain the real objectives of the school and not those to which lip-service only is given. It is no easy task to formulate objectives. Schools are frequently tempted to accept a glib statement which may have come to their attention rather than to think through their own serious purposes. Sometimes, in our committees we find this to be the case. Hence, as we try to define objectives we do not ask "What is meant by this phrase?" We are not trying to discover the dictionary definitions of terms nor even the conventional ones. We ask "What does your school mean by this objective?" "What are you trying to accomplish?" We want to keep the discussion focused upon the real purposes of each school and not upon the conventional definition of terms.

In order to cover these real purposes adequately, we shall also have to extend our procedure. As we visit the schools we find certain activities under way which seem to involve purposes not formulated previously. Sometimes, on our visits we sense a purpose which is not expressed. At these points we must keep asking the question, "What do you expect to result from this activity?" Only in this way can we get a clear picture of some very significant objectives which have been so basic to the work of the school that it has never given conscious thought to them, and also those very vital purposes which some schools fail to express because of difficulty in dealing with educational vocabulary. The work of the committees thus far indicates that vagueness of statement does not necessarily mean vagueness of purpose. This step of clarification is necessary to provide an understanding of the real objectives towards which the schools are striving and in terms of which the schools' programs must be appraised.

After the inter-school committees clarified the objectives by describing more definitely what they mean in terms of

desired changes in pupils, the next function of the committees was to explore possible methods of collecting evidence about these kinds of changes. For example, one member of the Committee on Interests and Attitudes explored the possibility of obtaining evidence of developing interests by direct observation of young people and the recording of these observations. Another committee member experimented with collecting evidence about interests by the keeping of diaries. A third committee member explored the possibilities of the interview, and a fourth tried types of interest tests. The purpose of this exploratory period was to discover the more promising means for obtaining evidence which might be worth further experimentation, and also to discover the defects which would need to be overcome and the values which seem to inhere in each of these possible procedures.

This exploratory use of possible procedures reveals promising general procedures by which desired evidence can be collected. When it comes to perfecting a definite instrument which may be employed in a particular school, rather than using the Committee as a whole, it is probably more effective for the work to be done by smaller groups or perhaps even one or two individuals. For this purpose, we have set up a Test Laboratory at our staff headquarters in Columbus. This is a laboratory which contains a collection of helpful materials, including promising tests and other instruments, and provides a place where one or two teachers at a time may work intensively with members of the Evaluation Staff in the construction of actual instruments for use in a particular school. We have just begun this phase of our work. As these instruments are developed they are then to be submitted to the large inter-school committees for more careful criticism and revision.

At this point may I comment on one misconception of the program which I have heard from several sources. It has been said that these thirty schools are not interested in teaching facts and information. This is not true. The objectives from each of the schools show a concern that pupils will obtain accurate and realistic information, not, however, as

matter of rote memorization to be glibly given back to the teacher at examination periods but rather, for effective use. These pupils will be tested to determine the degrees to which they have acquired and *can use* significant facts and ideas. The emphasis of the evaluation program is upon a comprehensive appraisal—upon the inclusion of instruments to give evidence of the development of these pupils in all of the important aspects rather than upon the mere testing of facts remembered. As the work proceeds we hope, one by one, to extend the available means of evaluation so that a comprehensive appraisal may be increasingly possible.

During this year, the significance of careful appraisal has become apparent from another point of view. These schools have maintained that the necessary freedom which secondary schools must have in order to reconstruct their curriculums continuously demands liberation from prescribed units and courses and emancipation from imposed entrance examinations, both of which tend to give inflexibility to a program which needs to be highly sensitive to our changing society. But the colleges, on the other hand, do need information about prospective students, both for the purposes of admission and purposes of effective guidance after they have been admitted to college. College authorities recognize that the usual transcript of credits and the results on college entrance examinations are not wholly satisfactory bases either for selection of students or for guidance. They are, however, of some value and before secondary schools may expect to have the freedom they desire as a more or less permanent policy, it is necessary to find a more satisfactory method of appraising students' abilities and potentialities which will provide information helpful to the college in selection and guidance and, at the same time, does not impose an inflexible and uniform curriculum on the schools. We shall need to follow our students into college and study their work there in relation to the evaluation data to find out which of these appraisal instruments are useful to the college and, if possible, to improve their value for this purpose.

This is a brief report of progress last year and of our plans. The essential features are: first, a consideration of important educational objectives as a basis from which any evaluation program should proceed; second, a cooperative activity in which the individual schools working with an advisory technical staff are developing new instruments at those points where there are not satisfactory instruments available for evaluation; third, the study of the results obtained by use of the instruments.

Appraisal is important in any educational experimentation. The time when arguments and impassioned pleas would justify the wholesale extension of an educational program is past. The significance of the Eight-Year Study must be judged in terms of its effectiveness in promoting desirable educational changes in boys and girls. The purpose of the evaluation program is to develop procedures by which we may determine the changes taking place in these boys and girls and thereby to enable each school to discover year by year the degree to which it is accomplishing its significant educational purposes.

RALPH W. TYLER,
Ohio State University.

Recent Developments in School and College Relations

DR. LESTER, Members of the conference: You may have noted with some foreboding that I am on the program twice this morning. The committee, realizing that to ask an audience to listen to an enthusiast twice on one program demanded more patience than you were likely to have, has suggested that I telescope the two appointments and in some way introduce the Committee reports into my talk.

I am sure the English teachers at least will concede that even though a talk might have a weak climax, a committee report on the end of it would be likely to spoil what there was, so I am going to introduce the report where I think it serves the purpose of illustration rather than make it a separate part of my share of the program.

There has been a great deal of emphasis lately on reports of incidents, very commonly called anecdotes, as material for examining the progress being made in various lines. I shall start this morning with a selection of anecdotes that relate to my subject—the developments coming about in school and college relations. These anecdotes suffer from one disability that anecdotes always have—they have a certain personal significance—because one can only relate an observed anecdote in which he has had some part.

I shall start about thirty-five years ago with a word about the position of the colleges in relation to their subject departments. At that time, there was no college entrance board. There was no clear conception, I believe, of each college as a part of an educational system. Inside each college there was less conception than at present of each professor or each department as an essential part of the whole institution with the demand that the person's objectives should accord with those of the institution. I can say that the more freely, for I myself was a member of the admissions committee in one

of the colleges at approximately the time of which I am speaking. The custom then was for each professor to select that preparation which he wished for entrance to his department and to insist doggedly that all pupils coming into the college should furnish evidence of having met those particular requirements.

In advanced algebra the common requirement that could be covered successfully by students in high school in the time allowed was four or five topics. So many different professors in so many different colleges had personal idiosyncrasies in regard to that subject that in my own secondary school teaching at one time I was forced to teach thirty topics in the time in which I could teach satisfactorily four or five. This was necessary in order to fit the demands of these particular men—I am not going to say of these colleges—who insisted upon this varied preparation.

The College Board started because there was a demand for some corrective for that situation, but after it started there were very serious problems still remaining.

I happened to be one of three to write the mathematics examinations for the College Board in one of its early years. Of the other two one was the head of a graduate department of mathematics in one of our great universities—a man who, I think, never taught any undergraduate courses, and the third person was the head of a college department of mathematics who was dealing with none but seniors and graduate students. The examinations were when finished, I presume, among the worst examinations ever given by the College Board, and you know that that is saying a good deal for those early days. I still retain a certain degree of sympathy for the students who tried them. One of the questions that was carefully phrased to test a certain ability was taken out by a college member of the committee and replaced by another, because the original question would never afterwards be used in college mathematics. Interestingly enough the question supposedly used in college mathematics had to be omitted from the examination results because it could not be solved!

There was no great consideration in those early days for the real meaning of some of the questions; that is, the questions required manipulation, and correct manipulation was satisfactory. For example, one of our most noted eastern universities used a question in geometry which, I suppose, was meant to be real because it referred to the speed of a sailboat, but the pupils who had common sense didn't hand in their answers because the mathematically correct answer made the sailboat go over two hundred miles an hour.

While talking with the head—a very interesting man—of a college department of mathematics in those early days, I said to him, "I am very curious to know why you take so little interest in the teaching side of your work and of your department. You don't seem to care about studying the type of response that comes from your students or to stimulate a different attitude toward mathematics and mathematical thinking." He looked at me in disgust, shook his head and said, "You don't understand; that is not my job. I know my stuff and I give it to them. If they don't get it, that's their lookout." That was not an uncommon attitude, I think, at that time.

One of the evidences of change was indicated in a conversation I had with a dean a little while after that, when, happening to meet me, he said, "Do you know a man to fill a certain position that we will have vacant next year in the college?" I asked him what he wanted. He looked at me with a twinkle in his eye and said, "We're thinking about trying an experiment. We have thought of getting a teacher."

How about the schools? About seventeen years ago I spoke to a very distinguished group of heads of schools, public and private—I presume as representative a group as could have been brought together at that time. I talked to them about the scientific study of individuals and of the needs of those individuals. I was not particularly radical, but I did suggest that any way we could find of studying the natural equipment of young people was important. I suggested that it might be very important indeed that we should use various tests that

were being devised for scholastic aptitude. I also had quite a little to say about the development of comparable tests of an objective type, and the use of them over a period of years so that the study of the trends of development in the young people would give us something on which we could base our guidance and our further plans for them. I went so far as to say that we ought to know a great deal more about the behaviour of these young people and what it indicated with regard to their attitudes, the habits they were forming and their personal qualities of various kinds. The audience heard me with a great courtesy but without showing very much interest, and with a certain amount of disapproval indicated by some of the faces.

As I stepped down from the platform I was met by three men who came forward very solemnly and asked me if I would mind talking with them a moment. They led me out of the room into another room and offered me a chair—rather significantly in a corner—and they drew three chairs around me. These gentlemen did not argue with me—they reasoned with me! I remember a few of their exact words. They said to me, "You must know that this kind of thing you are talking is rot," and they told me that of course they didn't care for themselves what I said because they wouldn't be influenced anyway, but for my own sake, as they liked me somewhat, they were very sorry to hear me talk this sort of thing in public; it would probably have a very serious effect on my own possible career as an educator. For half an hour they pointed out to me the great danger of my course, but finding me very difficult to convince they metaphorically threw up their hands and said, "Well, we have done our duty. We are sorry, but there is nothing more to be said."

Fourteen years ago a rather careful study was made of the purposes of the private schools in this country as expressed in their advertising and in their publications and books. Their purposes seemed to be two: the schools said they could get their graduates into college, and that they had some excellent athletic teams—but they didn't say much else, particularly

in advertising. We all know that this is not a complete picture of the purposes of private schools in any period, but it seems very significant that this limited aim should be the indicated purpose as presented to the public.

What has been happening?

You find as you approach the present that people do not state their purposes in the same way, and they certainly do things far differently. The three men who reasoned with me have all introduced into the schools for which they are responsible some of the very things that they called rot. Both school and college people are expressing their convictions with different emphases and in terms of different purposes. For instance, a college dean has just written for himself a short paper on the functions of the secondary school, in which he defines that function, as a preliminary to analyzing it with some completeness, as "to cultivate the native endowment of youth in relation to the society in which they will live." Here is a recognition by the college that the duty of secondary schools is not primarily the fitting of pupils for college or the building up of good athletic teams or even the developing of people who have impeccable moral character.

I heard one dean about a week ago make a speech about graduation from college in which he said that perhaps fifty students a year received diplomas from his institution although they had not met the exact requirements of the college for graduation. The faculty had authorized a committee to judge each individual case on its merits, and where a specific requirement was unfair to the individual, who, because of his needs, had done something slightly different, this committee overruled the requirement, deciding that the student had earned a diploma and should be given one.

The dean of one of our colleges recently challenged his faculty to analyze their own objectives man by man and department by department. They were not to give their objectives in terms of teaching a certain amount of subject matter in a certain field, but rather to say what was the part of their department in the total purpose of the college

which was turning out men who would take their places in our social order as functioning, contributing individuals. I understand the first doubtful response was followed by intense interest which culminated in real value to the college.

There are a tremendous number of cooperative enterprises in which schools and colleges are working together at the present time. They show the same changed approach to the various problems common to us. The American Council on Education with its Problems and Plans Committee, which has been working a little over five years, presents a very good example of this. This committee was formed to study needs for research, and in particular to view the whole spread of education in the United States as a challenging problem for investigation. It was to see where something needed to be done, and how necessary information could best be gotten. In the original analysis of the problem this committee considered three areas. Human beings constituted the first, with emphasis on knowledge about human beings. The second was human society, and the third, those tools and procedures that should be used to prepare human beings to take their places in human society. That is a tremendously broad program; it involves recognition of our problem on a totally different scale than used to be true when we set up those little meticulous demands that each man settled in his particular department without adequate consideration of the totality and interrelation of our problems.

The three areas I have mentioned have since been analyzed in various ways and have produced many interesting investigations. There has been a committee at work on "unitary differential traits": another committee has been studying the vocational demands on young people going out to take their places in the world. There are the Cooperative Test Service, and the Examination and Testing Manual that is now being prepared. There are many other scientific approaches to questions of this kind under way, culminating in the tremendous project of "youth study" which has just been launched. This concerns the care and education of American youth be-

tween twelve and twenty-one—a staggering undertaking, but one that will be attacked in a scientific and comprehensive manner.

I might also mention the fact that the government at the present time is appropriating sums in the millions for somewhat similar purposes, and is doing it with the advice of various research organizations.

The reports that I am supposed to give might very well come at this point because they too concern cooperative attempts to solve school and college problems. Some of you will remember that in 1932 a committee of the Educational Records Bureau, called the School and College Relations Committee, approached the colleges of the country with a number of recommendations and questions. The first question was roughly this: "Are you willing to give greater emphasis to those things that have to do with the kind of person who applies for entrance? Will you express to those who are preparing students and to the students and families from which they come your feeling that it makes a difference what kind of a person enters your college community?" The second question was whether the colleges would be willing to give greater weight and greater value to cumulative comparable test records over a term of years as part of the entrance information required. The third, which was expressed under various headings and with several modifications, concerned the possibility that was spoken of by Dr. Fuess yesterday in relation to the English universities' acceptance of candidates a year or more ahead of their entrance to college, and the consequent freeing of them to some degree for the last year so that they might grow in accordance with their own needs rather than be confined to any restricted curriculum.

The answers from the colleges were reported in a publication of the committee which was sent out in 1933. Since last spring the questionnaire has been sent out again, the communication going to all the colleges in our general college associations, and about 370 colleges have given their answers to the questions asked.

The answers are interesting indeed. I am not going into them deeply because you will have the opportunity to read them. I do want to say that there was a very good response indeed to the need for increased emphasis on the type of person. Some of these colleges were not able to give any definite assurance of cooperation because of limitations such as state requirements, or of other inhibiting factors, but 77 per cent of the colleges have definitely stated that they will do what they can to encourage this greater emphasis on the type of people who are coming into the colleges, and later into our communities.

Ladies and gentlemen, it is impossible to overemphasize that need. If we are sharpening minds to be used by criminals, what is the constructive advantage of our education? It is not our part to turn loose on society cleverly trained young people with no moral or social direction, no feeling for the good of humanity. If we have any single responsibility resting on us it is the responsibility for guiding the young people in our charge in right thinking toward their duties in human society. The recognition of this recommendation by the colleges is an indication that college executives are thinking in exactly that direction, and are willing to support the schools in their attempts to better present conditions.

Almost as large a proportion of the colleges were in agreement in regard to the value of cumulative comparable tests which would tell the story of the development of the students in various areas of human knowledge over a period of years, and would tell it in such form that some rather definite answer could be given to the way in which one student's response compared with those of many others who had had somewhat similar opportunities.

A smaller number but yet a significant number of colleges are interested in the choice of applicants far enough ahead to allow greater flexibility in the last part of the secondary school course.

This report will be sent out to the member schools and the colleges involved early next week. If there are any here

who do not fall in those categories they can obtain copies from the Educational Records Bureau.

I should like to mention one or two very significant responses that have come from this recommendation, brought about very largely, however, by interviews with Dr. Ben Wood, who is a member of the committee. The American Association of Collegiate Registrars has passed quite an extended resolution in agreement. Among other things it says, "Constructive educational guidance depends upon accurate and more comprehensive information regarding pupils as growing individuals. This information should include comparable measures of aptitudes and achievements over a period of years, such as a record of personal development, concrete observations on conditions and evidences of permanent and dominant interests, attitudes and habits. Since it is desirable to study the individual as a growing phenomenon, this study of the individual must extend over a period of years and the measurements taken should be as comparable and meaningful as possible."

The Pacific Coast Association of Collegiate Registrars has also passed a resolution, and various colleges are putting into their catalogs definite statements based on the committee's recommendation, or if not based on it, based on thinking along similar lines.

This committee realized after making its recommendations that there was at present no very suitable method of studying the attributes of the individual, particularly when they were what are commonly called traits, or personal characteristics. It was about to start a study of this question when the Commission on School and College Relations of the Progressive Education Association launched the eight year project of which you have been hearing this morning, and very early in that project the Records and Reports Committee was appointed. It was at once evident to the School and College Relations Committee of the Educational Records Bureau that this new committee had been appointed partly to do the very thing that it itself was about to do. As it happened that the chair-

man and three other members of the first committee were appointed on the second committee, the Educational Records Bureau Committee decided to leave that part of the work to the Records and Reports Committee, asking it to consider itself related to the Educational Records Bureau Committee and to report from time to time to that organization.

Now, as chairman of the Records and Reports Committee, I should like to make the second part of the report. You have already heard quite a good deal that has to do with its work from both Mr. Aikin and Dr. Tyler. The committee seems to have the following functions, which evidently overlap to some extent. First, to do what it can to promote and organize a better study of the individual; second, to plan and help our schools carry on whatever can be done to give the colleges better information about the students applying to them; third, to work out an evaluation program which will enable us to judge more accurately the development of our young people in certain important attitudes and abilities; fourth—and one of the latest developments—to make a study of the use of available material for guidance purposes; and last, growing out of all of these, to plan and administer some kind of evaluation of the eight-year experiment so that the results that come from it can be of general help in education.

Dr. Tyler has told you about the evaluation project. About the material for college entrance, I am going to say this much: nothing is fixed at the present time except that it is the aim of these schools to give the colleges as significant and full information as possible. They are preparing for the colleges histories of their candidates during their secondary school careers. They are preparing studies of them as persons, and that material I will later go into more fully. They are using standardized tests to the extent that those tests fit their particular objectives and the particular courses with which they are experimenting. They are also expecting to use the more accurate, dependable and comparable information that Dr. Tyler's committees will soon produce. We are find-

ing that the work of the evaluation committees and the studies of young people being developed by the Records and Reports Committee more and more dovetail and supplement each other, so that they promise eventually to become parts of one single comprehensive method of child study.

The committee presented last year as part of its report the manual which is in use in a good many schools in their attempt to find out more about the characteristics of their pupils. The committee has been extending its study of characteristics and has recently added an analysis of "social concern" to those in the manual. It is at present considering about two hundred and fifty terms in use in schools, colleges and social agencies of this country to describe people, many having meanings that are more or less vague. This list is gradually being cut down so that a very small number will be kept as important enough for complete analysis by teachers. Others will be used for less complete (but yet significant) analysis.

The form of report being developed at the present time is on a double page sheet like a filing envelope. On one side of this there will be printed the definitions of types of people under each heading as they have been analyzed by the committee. For example, under "responsibility or dependability," one type-description, will be that of the "conscientious" person, and the description will indicate that such a person can be depended upon to carry out those things asked of him, but that he is not one who will add from his own thinking the extensions that expand his opportunity or his duty beyond what has been laid down. For each characteristic there will be a place for a six-year recording by everybody dealing with the pupil—for the opinions of those who observe him as to the type to which his behavior indicates that he belongs. The records will be keyed so that in going through them anyone can tell who has made any report and from what association with the pupil.

Perhaps the most important thing about this listing of types is that it is not a rating. There is no assumption by the

committee that it knows what kind of people are the most important to the world, not even in relation to a single characteristic. There is an assumption by the committee that it considers the chosen characteristics to be of prime importance; that the production of people who can carry responsibility, who keep a creative attitude, who have a constructive influence, who will meet their problems with open and inquiring minds, who demand full and accurate data and reason accurately toward their conclusions, who have a genuine social concern, is a most vital purpose of the school. Let me repeat that there is no assumption that an exact type of person is the one that must be produced. For example consider "creation." Who knows whether the man who has a "one-track" mind in his creation, with a tremendous enthusiasm for one thing, who will drive forward in that one area with all the initiative, determination, the creative approach possible, may not prove far more valuable in his contribution to the world than the man who is generally creative in his approach, or has a generally inquiring mind, but who perhaps never gets as deep into any one field of activity as the other man does? The Committee makes no assumption with regard to such matters; it asks only for a description of each of the persons studied.

On the card of which I am speaking there will be opportunity for quite complete descriptions under analyzed characteristics. There will also be opportunity for expressing opinions as to an unusual amount of a certain characteristic or an unusual lack, where the extreme is the important matter. For example, there will be an opportunity for saying whether a person seems to have great energy or noticeable lack of energy. One of the most important features will be approximately a whole page on which one can write whatever he believes adds to the accuracy, completeness or distinctiveness of the picture of the person described.

The committee in working out its instruments has gradually changed and modified them through experiment, through the cooperation of the schools and the study of large numbers of

cases, until it has arrived at a form that is self-interpreting, that is not open to the usual criticisms made of "rating" material, and that has been approved by large numbers of our leading psychologists as well as by both school and college teachers and executives. This development could be discussed at great length, but the time is going very rapidly and I must come back to my original thesis.

These reports are offered from two standpoints; as a report of progress of these two committees, and also as further evidence of the trend about which I am talking. I started with incidents from twenty to thirty odd years ago which seemed to me to indicate very definitely that at that time our institutions did not fully recognize their place as a part of our general educational system.

About fourteen years ago, I presented a statement to a group of students, all heads of schools, in one of the colleges saying that there was no place in the United States' system of education for schools that were owned by individuals and used as businesses. This was strongly contested at that time. Before the discussions of six weeks of the summer course were over a vote showed unanimous agreement with that statement. What has happened in regard to that particular point? There is hardly an important school left in this country that is owned by an individual and run as a business. The schools have re-organized so that they are really parts of our educational system. They are under public-spirited boards of trustees. They are beginning to call themselves by a new name, "independent schools," meaning simply that they are independent of the political system but that they recognize that they are part of the educational system. There were colleges which were completely independent, which demanded what they wanted in any subject or procedure, irrespective of what young people should have. The college no longer consider themselves as independent of our educational system, but conscientiously—and with inspiration in many cases—take their part in all that has to do with th

tremendous problems of education that are facing the American people.

I would like to say just a word about the magnitude of that problem. We have at the present moment, approximately thirty million young people in this country in educational institutions. There are over a million of us serving them as teachers. From a negligible proportion of the population in our secondary schools, enrollment has increased to almost three-quarters of those eligible. If schools take three-quarters of the population, they take a great many who are below average. It has been said recently that there are many states in this country with a large proportion of the people in them who need supervision, that proportion being said in some states to reach as high as one-third of the population. Yet we are trying in our secondary schools to educate almost three-quarters of that section of population that falls in the secondary group.

Can we any longer—dare we any longer—fail to face the question of school and college relations on this new basis? It may have been fair back in the time when each institution stood by itself, when, if a man was an expert in advanced mathematics, he therefore was supposedly an expert in saying what children should have in mathematics all the way from the primary up, to assume that a college should prescribe a secondary school curriculum and say “we must have that or we will not accept the student.”

The attitude now must be a quite different one. We are all parts of this great educational system. Everyone of us is, apparently, concerned with the individual student, with making the most of him and fitting him as well as possible into human society. It is no longer possible for a subject matter expert to say what shall be done with a ten-year-old child, or a fifteen-year-old child, or an eighteen-year-old child, simply because of his knowledge of his subject field. Those of us in secondary schools no longer presume, and I use the word “presume” with intention, to say what shall be done

with young children, because there has begun to be a science of education, which decides better than we can what young children need and can do. If any of us have really studied the science of education for younger children, however, we may without presumption advise with those who teach them.

There are those in college who are specialists in regard to adolescence. They should help in every possible way those in secondary schools who are also specialists with regard to adolescence. Every one who can should contribute to the solution of the problem of what adolescence needs today, in our life, our social system, our kind of civilization, but we can no longer, from many more or less logical internal organization of subject matter, or any less than honest statement of prerequisites, lay out a course which shall be a universal demand on this tremendously varied population of our secondary groups.

We are at the point where only by pooling everything we can all give can we answer the criticism that has been made by some of our leading critics, that we have reached a point where our schools are outmoded; that the demands of the present are so different from those of the past that the schools are completely out-of-date. That is a serious challenge; it may be an exaggerated challenge, but the fact that it can be made makes it a challenge that must be met.

The encouraging thing is that every indication, at the present time, seems to point to the fact that in our school and college relations we have begun to accept common responsibility. We realize that our public schools are the overwhelmingly important part of American education, but all the rest of us are proud to be in that system, trying to contribute to it, recognizing that our first duty is to the social order in which we live, and to those individuals who are going to compose it in the future. So we are forced to study with every means within our power how best to serve each pupil at each stage of his education. Consequently colleges will increasingly accept school graduates after they have had the right kind of experiences in the schools, those which have enabled them to de-

velop all that is within each one of them, and the colleges will carry on again from that point in the ways that prove best suited to their purposes.

That does not mean that colleges have no right to make various demands on candidates and schools. The only point I should make in relation to that is that prerequisites should be honest ones. If an engineering college demands certain mathematics, that requirement should be for mathematics that will be used, and the college should demand it because it is an honest prerequisite, without which its work cannot be successfully achieved. The college must, however, and they increasingly do, leave as much of the secondary work as is not honest prerequisites free for determination by those who are studying the needs and capacities of adolescence.

Perhaps the greatest sign of progress is that the time has come when I can say that without its being resented, as it would have been a few years ago. Today I believe such frank statements are welcome. I think we have all reached the stage where our personal desires, our individual biases are sinking, if they have not already sunk, into the background, and where we are quite ready to say, "Here is a common problem. My contribution to it will be above any prejudices or personal desires, will be an open-minded scientific attempt to understand and face the situation as it really is, to see my part in it, and to do what I can to carry it a little nearer to its final solution."

EUGENE R. SMITH,

The Beaver Country Day School.

Admission Requirements, Advanced Studies, and the Freshman Year

INTRODUCED BY WILLARD W. BEATTY,
SUPERINTENDENT, BRONXVILLE PUBLIC SCHOOLS

We have decided that, in view of the fact that there is supposed to be a noise abatement campaign in New York City, possibly it may have penetrated the dining rooms of the Roosevelt Hotel and that we may be able to have quiet so that we can start our program on time. In introducing Dr. Gummere I cannot help referring back to the feeling of tense concern which developed among a great many of my friends in the secondary schools when it became known that the man who was occupying the position of Director of Admissions of Harvard was about to retire and that a new man would be chosen. Of course, Harvard is a rather major objective for many of the secondary schools in this part of the country and therefore its policy regarding admission is important to all of us. I can report the sigh of relief and the words of satisfaction that I heard on every side when the news became generally known that Dick Gummere was to succeed to that position. I don't know him well enough to call him Dick, but I hope to before he is much older in the present position. Coming from Penn Charter School, where he has made a name for himself among secondary school men, into a key educational position in this country, I think I am safe in saying that he stepped into that position with a greater degree of good will than almost any other man might have received. It is therefore with great pleasure that I introduce Dr. Gummere today to discuss certain relations between the secondary schools and colleges.

(The manuscript as here printed was developed by Dr. Gummere on the basis of notes used in speaking)

ADDRESS BY DR. RICHARD M. GUMMERE

IT IS a great privilege to address this group on matters which concern the last three years of school, the first year of college, and the further development of aptitudes and capabilities which can be attained through this period. To all who deal with admissions, these affiliated or conjoint associations which have helped to record pupil-progress and thus render education more vital, have made valuable contributions. There is a trend, perhaps not merely a "far-off divine event," towards bringing all such agencies into one coordinated powerful channel of perfected technique, high standards, and sound traditions. Whether the educator defines his job as an art, a science, a profession, or a philosophy, we are all agreed that what we seek is the essence of pupil development which blends in a sanely balanced society, doing justice both to the *culture générale* and the "G" of the person himself. Dr. Kandel illustrated this movement yesterday with convincing accuracy; and we think also of the definition which Dr. Learned has given—"a dynamic cumulative curriculum, with ideas expanding because of natural growth round four or five constant centers of reference." And, since the United States is not a place where values are as firmly fixed as in Europe, there must be regional flexibility.

We should consider the accomplishments over recent years rather than tear to pieces the parts of the picture which are too full, as Samuel Johnson said, of "anfractuositities," or rough edges. We may leave this sort of thing to the public, which does not understand the spade-work and the intelligent analysis already so beneficially expended. The professional, graduate, legal, medical, and research training was the first to go on an expert and perfection basis; then, due to Progressive and scientific principles, the education of early American childhood reached a standard which is the cause of pride. Five

years ago, then, we were all saying that this "white-light" excellence existed at the youngest and the oldest stages of our complete line of education: the secondary school and the first two years of the liberal arts college were the target for critics and for the general public, who attacked with the glee of small boys in front of a plate-glass window. We certainly should endeavor to satisfy the community who are concerned with these institutions, but we may leave out of consideration, at least temporarily, the persons who ask why stenographers cannot spell, or lawyers use good English, or bookkeepers observe accuracy in their figures. They preach a certain "horse-sense"; but in this term the wrong animal seems occasionally to be embalmed.

We may conclude, then, that the American Council, the Progressive Education Association, the Educational Records Bureau, the College Entrance Examination Board, the Secondary Education Board, and other groups which would make a regular "catalogue of ships" in the educational fleet, have accomplished highly satisfactory voyages and have brought back invaluable ideas. There is now no quarrel between the vocational and the cultural, as was the case fifteen years ago; no setting off of Progressive and Conservative, which reached its climax perhaps a decade in the past. All good schools have seen the value of this point of view. There are still several clearing-houses; but they all welcome, so to speak, any good legal paper. The technique of school investigation has reached a new high record; and the plea of President Lowell, uttered at Carleton College in 1916, has been answered, as far as the schools are concerned. In this plea he called for an educational objectivity in research among college students and college studies, which would clear up the liberal arts college problems as the researches in graduate medicine and related fields had made the physician's job a matter of truth-finding rather than of guess work; just as astrology blended by logical stages into astronomy. Add to this the whole field of hygiene, physical education, psychiatry, and the conscientious but still unsolved puzzle of measuring or testing citizenship and morality. One

might also say that we are on the eve of an educational renaissance. But our findings must soon translate themselves into practice and action if they are to be effective.

We have such vast material to work with that it looks as if from now on intelligent selection were more important than further pioneering or scientific analysis. The last twenty years have been so rich in their results that those blessed words "integrate" and "synthetic" were never more appropriate than they are now. Chaos has given way to order; and every admission chairman with whom I have talked feels that he has better media and better material to work in and on than ever before.

In order to clear the ground and not wander aimlessly in this rich but complicated country, may I set before you several "theses" upon which we might agree before proceeding to particulars.

We are all united in the belief that this continuous process must be based on fact-accumulation as well as upon creative processes; for how can the pupil *create* unless he has acquired a stock of ideas? And is not our fictional literature of today weak for the very reason that it is making something out of nothing? And are not the contributions of many children's magazines feeble because they show a lack of training in memory and in constant acquaintance with the best models of past masterpieces? And I object with all my might to the theory that the "creative" viewpoint is at opposite poles to the "scholarly" viewpoint. Anyone who has studied Shelley's notebooks, recently published, will see what his obligations were to the Bible and Plato and Milton. And, conversely, one who examines the bibliographies of our historians and biographers, the astronomical studies of Shapley, or the physics of Millikan sees what a cultural past lies behind their researches. So, too, with the Humanizing of Science in the hands of Harvey Cushing. This creative urge, if managed properly, means an American Renaissance; if bungled on the go-as-you-please plan, it means disintegration.

Our second thesis would be that a pupil of sixteen can be

treated as maturely as a student of nineteen—allowing for a slight difference in intensity of treatment and the need for more guidance in the case of the one than in the case of the other. Here is a grave error that many of us make—for example, the remarks of a school trustee in a memorial tribute to a well-known religious leader who had started after graduation from college in the school-teaching line: "It became evident to him after a few years that teaching was not his vocation. A kind of fundamental maturity of thought and constant weighing of evidence prevented complete understanding between him and many of his pupils, although frequent tributes from others place him high among the formative and important influences of their lives." This is a complete misunderstanding of the teacher's function—and it involves the cardinal and underlying principle of this address—the maturity of the secondary school pupil and the objectivity of search for truth. These words would imply that this teacher failed because he was thinking out problems with his class instead of telling them impulsively that they ought to agree with his own dogmas.

A third preliminary point is the fallacy that it is dangerous to specialize early, even to a reasonable degree. There is a splendid answer to this view in a letter from William James to O. W. Holmes, Jr., from Dresden in 1868 (in the *Atlantic Monthly* for September, 1935): "I am firmly convinced that by going straight almost in any direction you can get out of the woods in which the young mind grows up; for I have an idea that the process usually consists of a more or less forcible reduction of the other elements of the chaos to a harmony with the terms of the one on which one has taken his particular stand." We have heard yesterday about the final two years in a British school after the leaving certificate is attained; why not one year in an American school? One need have no fear of "Specialization without misrepresentation."

A fourth "thesis" would be that some type of comprehensive end-examination is necessary on passing from school

to college. We should all cordially agree with Dean Boucher, now President of the University of West Virginia, who enunciated a year ago as a cardinal principle of the Chicago system the importance of "the divorce of the examination function from the instructional function, with the examination function placed in the hands of an independent agency." These fields of examination need not be many, but they should be searching.

We must have our student in possession of ideas that can be *applied* and *used*. The subject of the year for the Private School Teachers' Association of Boston is "The Change in Education from the Acquisition of Knowledge to the Power to Use It." This does not refer to the subject itself; for Latin may be useful to a Romance language concentrator as mechanical drawing is to the engineer; and the living-room stands on a par with the shop-room or the school art studies in this respect. The criterion probably may be described as DeQuincey described the difference between the Literature of Knowledge and the Literature of Power—which differentiates a dictionary from *Paradise Lost*, or a library catalogue of medical books from DeKruif's *Microbe Hunters* or Zinsser's *Rats, Lice and History*. "Power to use" means the application of an idea to a given situation—from collecting first editions to wiring a house. *Power to use* was greater than technical training or school efficiency in Sir Michael Sadler's Fourth Georgian England, when that country was at its lowest ebb in the technique of schooling and at its highest point in the creative genius of its literary men.

Assuming a knowledge on the part of all school administrators and teachers of the new "alpha, beta, gamma" examinations of the College Board, and acknowledging with deepest appreciation the guidance and investigation which have made them possible, we may turn to more concrete matters. If you agree with all or with most of these "theses," you will feel that Plan A is the weakest of the college entrance methods, with one exception—that of students who are so keen that they can clear off all their obligations by the end of

their fifth form or Junior year in high school, and enjoy the Senior program in coordinated, or specialized, or hobby studies. This is possible for 20 per cent of a given class in a school of high standards, and is being carried out in at least six schools. The continuity is not interrupted if mathematics or one or two languages are pursued throughout. When the old types of College Board examinations disappear from the picture, the process will be difficult if one must wait for the "gamma" in science or social studies, but simple enough if an "alpha" in any of these will do.

Plan B is becoming more and more flexible. What used to be English, a foreign language, a mathematics or science, and one other test, now becomes a combination of Scholastic Aptitude Test, English, and any other three subjects offered by the College Board and taken at the end of the Senior year. The school certificate is no more a matter of "units," but is inspected as a whole, calling for at least two fields in which the learning process goes beyond the elementary stage, and for two-thirds of the whole program to be at least *quality* standard,—i.e., above certificate grade. Furthermore, the colleges which use Plan B, while ordinarily desiring representation in the "four or five constant centers of reference" which the above-quoted statement of Dr. Learned mentions,—languages, numbers, the human story past and present, the world of nature, and the fine or practical arts and music,—may in the case of a mathematics or science enthusiast emphasize to a less extent the linguistic and historical element, or in the case of a humanistic follower leave off science and mathematics except what corresponds with the new *alpha* of the College Board. For the boy or girl who has made no decision thus far and has felt no urge to any field *par excellence*, a reasonable taste of each is highly in order. Wide choice does not mean slovenly or disregarded essentials, if the line of least resistance is not followed.

There remains the high honor student of unusual promise. The practice here varies. We know one university that reduces the examination requirement from the full plan A or

B to a S. A. T. and an English examination. We know one that admits rare cases after careful inspection with no examinations at all. Another admits the upper fifth of all schools, another the upper seventh of the boys in the graduating class without tests from certain schools for certain specifically announced reasons.

These methods all work, in various ways, with satisfactory results. Several colleges, which have not as yet asked for definite achievement and intelligence tests during the school course, are in their forthcoming principals' reports allowing space for these, together with personality ratings. Certain of us believe in these "End-examinations," however, as indispensable stock-taking; and it would be abandoning our principles to announce otherwise.

There is thus a general bringing together of all points of view into one picture. Those who have been sending to college on certificate alone declare in many cases that they now desire the Scholastic Aptitude Test, in view of its close correlation with Freshman accomplishments. Some will dispense with it; but they will rely on some form of examination during the school years: the Educational Records Bureau with its affiliated agencies will be a vital part of the program. Whether we differ or not in our views on this point, we shall all agree that a truth-telling headmaster or director of studies is the indispensable climax to the whole process; and I for one am grateful for the help such men have given. Like Marcus Aurelius, therefore, who began his Autobiography by thanking those who had inspired him throughout his life, we are glad to offer an oblation to those who have prepared skilled tests of various kinds during the pupil's school course, to the planners of the new-type College Board Examinations, and to those heads of schools who tell the truth about a pupil, "who swear to their own hurt and change not."

* * *

The Freshman who travels a round of elementary work, or work which is a mere continuation of his high-school pro-

gram, will be bored and tempted into more and more of the compensatory outside activities which a recent foreign visitor criticized with gusto and which many observers have viewed with alarm. It is good to hear of the growth of advanced courses in many colleges. At Princeton and Yale the process has gone ahead very satisfactorily; and at Harvard, for example, there are 300 such Freshmen. French has 85, Economics 50, Fine Arts 40, Philosophy 32, Sociology 29, Music 25, Astronomy 20, Chemistry 16, and others scattering. It is also interesting to note that each of the twenty-six departments in the University has contributed to a small pamphlet just published, outlining the prerequisites and other preliminary recommended courses to Sophomore concentration, both in Freshman year and as far back as the second year of high school. It is expected that, with the new philosophy of education which the choice of College Board *gammas* will introduce, the student, without losing contact with the main "constants" already referred to, will build up his program on a thorough elective basis and at the same time retain the all-round touch. This process combines the depth of mastery in Latin or Mathematics or German, for example, and at the same time makes for the greatest Progressive interest in one's subject as a vital and creative part of the future-building idea. The accelerated group in the Buffalo high schools matches the recent appointment at Mount Holyoke of a special advisor to a special number of first-year students, under whose guidance they will give the major portion of their time to two major subjects, instead of the scattering which characterizes so much of our Freshman work throughout the country.

You yourselves are familiar with many of these experiments in advanced work in the secondary school: two-year chemistry or biology sequences, four-year history "cores," Freshman Latin in the school, besides the French, German, and mathematics already in frequent practice. An airplane view, so to speak, of these methods proves conclusively that justice is done to pupil maturity without strain or "grind," that the abler pupil is satisfied and the mediocre student coaxed into

a definite hobby. And the eccentric type whom many of us have hitherto been unable to reach is brought unconsciously into a normal procedure. Perhaps as important as anything we can think of is a heightened understanding between school and college, doing away with many of the water-tight distinctions that have previously handicapped the articulation between secondary and collegiate education. Schoolmen are taking over college courses; university faculties have sent permanent ambassadors to certain academies. And at one or two Middle States institutions there is a regular exchange and loaning system from the one to the other.

It has been suggested from time to time that the college candidate be selected when he has one more year of secondary education left to complete. Several schools are in line with this idea, sending up their best pupils to college: the plan harmonizes with the early Plan A which has been mentioned above. In this case Plan B examinations would be given for courses taken in the third-year curriculum. There are certain natural objections to this procedure on the part of the schools themselves—the possibility of the student leaving school prematurely, and the undesirability of entering college too young. In any case, one sees no reason why a rigid “unit” system should tyrannize the admissions field, if achievement and intelligence tests, with College Board examinations at the articulation point, are maintained. The admissions officer would merely balk at insufficient information on the principal’s report; but he would no longer count the “credits” in a purely mathematical scale. The college wishes a complete history of the pupil’s progress, with all the available criteria.

Integration is therefore taking the place of analysis. The water-tight compartment system is giving way. Whether or no it was the hierarchy of democracy, or the relic of the catch-as-catch-can pioneer, or the indistinct pragmatism of our gradual growth from grammar school to college to university that caused these irregularities, there is a constructive thoroughness in the air. The best schools are accomplishing by a sort of mental N.R.A. process what the British mind

accomplished by gradual and experimental alteration, or what the French have done by gradated changes in a reasoned policy. Form, outline, theory, have tended to disappear; color, intensity, and knowledge in itself have come to the fore. Since we probably shall never recapture the idea of culture as it showed itself to Matthew Arnold and his contemporaries, since the centrifugal traits of our era have split up culture so that the physicist and the literary man cannot understand each other, it behooves our schools to give the prospective leader a thorough residuum of past tradition which everyone can recognize and at the same time a variety which will make him comfortable in the company of those who follow interests differing from his own.

I have been asked frequently for my opinion of the Eight-Year Progressive Experiment, with reference to admission matters. It would seem clear that it means some valuable pioneering and a distinct aid to interest and understanding on the part of the student, if the process is thorough, if the new combinations and coordination mean no lessening of intensity and depth. The languages need re-interpreting at certain intervals; the mathematics need to be evaluated and rearranged from time to time; the still unsuccessful endeavor to communicate citizenship in the classroom is a challenge; science pants as it races to keep up with modern discoveries. For this reason one should welcome any honest and inspired attempt to fit the school to life; and the admission officer waits with sympathetic interest to discover the solution, rewarding in the meantime all clearly proved accomplishment.

Nor is it a far cry to the work of the Committee on Co-operative Standards in Secondary Education. Former Commissioner Zook has seen clearly that much of our nation-wide education is a quick-lunch affair; the regional associations which he has called together and which are now cooperating under the guidance of two research experts at Washington have replaced the statistical and sometimes meaningless questionnaire with a searching study, shared and to be shared by all serious school men, which shall be incorporated into a

flexible and intelligent *credo* for the educator. "What is a good school? How can it be developed?"—these are the fundamental questions which will challenge solution.

Assuming a universal agreement as to morals, health, and social "one-sidedness," we should all note the three main streams of tendency in present-day education: first, an attempt to find a minimum national norm by which a good school may be attained or maintained; second, the endeavor to master a department of knowledge beyond the average limit; and third, the plan to coordinate old subjects into a new meaning. They are all vital to articulation because each in its own way represents a striving after higher standards. Interwoven with these are the improvement of guidance, of testing programs, the measurement of the pupils' intelligence and achievement—aids to the process of securing a greater significance and meaning to what the pupil is taught. The *how* and the *why*, as Superintendent Rule has said, equal in importance the *what* and *when*. With the pursuance of these aims, there was never an era when the understanding between school and college was better than it is now, or when education was more ready to penetrate new levels of usefulness and accomplishment.

RICHARD M. GUMMERE,
Chairman, Committee on Admission,
Harvard University.

Fifth Annual Meeting of Institutional Members of the Educational Records Bureau— Committee Reports¹

JOHN A. LESTER, Friends Council on Education, Presiding
Mr. Frank C. Wheeler, The Choate School, Chairman, Independent Schools Advisory Committee

THE annual meeting of the Independent Schools Advisory Committee was held last evening with thirteen of the twenty-four members or representatives present. Inasmuch as the ballots electing three new members are coming in during this meeting, we have found it necessary to devise some means of retiring three members each year. The suggestion that we voted to adopt was that the twenty-four members of the Committee be divided by lot into eight classes of three members each and that one of these classes be chosen by lot and retired at the end of this year and one class each succeeding year in order to establish a plan of rotation.

The problem next considered was that of how the Committee could most effectively cooperate with the Secondary Education Board in administering the preliminary testing program which some of its member schools are contemplating. A beginning in such cooperation had been made in the spring of 1935 by making the Bureau tests available at the beginning of March and urging that all Bureau members give their elementary tests at that time. While this was intended primarily as a step to facilitate the testing plans of schools of the Secondary Education Board, it was clearly recognized that the early program held very direct advantages for Bureau members, including the special advantage of providing help in analyzing pupil difficulties early enough to give the schools opportunity to work toward a remedy before the school year

¹ The report of the Committee on School and College Relations of which Dr. Eugene R. Smith is chairman was given as a part of his address on "Recent Developments in School and College Relations."

was over. In conformity with the Committee's recommendation of 1935, about half of the Bureau schools did actually arrange to have their elementary testing program in March.

The 1936 preliminary testing of the Secondary Education Board has been planned for the early part of March, and there was considerable discussion as to how the elementary tests could be given in March and the secondary tests in April without inconveniencing or disrupting the plans of schools that included both elementary and secondary grades. The sense of the meeting was that all schools should work toward the establishment of the cumulative record card as a means of transfer, the feeling being that if cumulative record cards were available it would eventually probably not be necessary to give preliminary tests at all. In the meantime, the members of the Advisory Committee believe the Bureau should offer every facility to both elementary and secondary schools to have these tests given in the early part of March. We voted to carry on this year as last, with the hope that efforts would be made to establish the cumulative record card. The details of the matter were, by vote of the Committee, to be left to Mrs. Wood and the chairman.

The Committee also discussed the possibilities of pursuing the study made recently by the chairman of the uses made by the various schools of the results from comparable tests and of cumulative records. The letters written in response to the chairman's request for information were published in the annual bulletin last May. It was felt by the Committee that while these answers were exceedingly useful as far as they went, it would be of value to continue further with individual departments and with teachers in our schools to see how these objective tests and the cumulative records can be used to the greatest advantage. It was felt that many schools are now using the tests and filing them away without utilizing them fully to the best advantage of the pupil.

It was decided by the Committee that since Dr. Traxler's informal question and answer session would be discussing these and other problems in connection with the uses of the tests, it

would be best for the members of the Committee to adjourn to that session. At the conclusion of the session Dr. Wood quoted resolutions from the Board of Directors congratulating the Committee on its fine work and urging them to continue it. Subsequently it was voted by the Committee that a sub-committee, consisting of Messrs. Walton, Shortlidge and Fessenden, be reappointed to continue to urge the schools to have their tests scored by the Bureau in order that larger numbers might make the norms more valuable to those using the tests. The members will undoubtedly hear from this committee during the year.

The Nominating Committee then nominated and the Committee elected this chairman to succeed himself for the second year. I am sorry that the three members who are compelled by lot to leave this Committee this year are from schools that have been extremely valuable to the Committee. We shall still want to call upon Mr. Yarnall, Mr. Winsor and Mr. Weld for assistance. They will, of course, be eligible for re-election at a later time.

*Dr. Albert B. Meredith, New York University, Chairman,
Public Schools Advisory Committee*

During the past year the services of the Bureau have been used by a relatively constant number of public school systems, most of them scoring their own tests with sample scoring by the Bureau. The number of school systems has not increased materially over that of last year.

The outstanding feature of the Committee's work, however, has been that of the demonstration project, aided by a subvention from one of the foundations, whereby seven strategic school systems have cooperated with the Bureau in putting on a demonstration of what may be done. Monies have been appropriated locally and funds have been made available for a relatively complete program, effective over a period of three years beginning with the seventh grade, or the first year of the junior high school, and the tenth grade, or the first year of the senior high school. We expect to carry on the experi-

ment for three years and then to make known generally the results of this experience with the tests and their application to the cumulative record card.

The program has not consisted merely in the use of the tests. The services of the Bureau have extended through visitations, correspondence, and publications, so that in these centers there is a general program of education with respect to the viewpoint which the Bureau represents and the use of the material which it provides. These centers are at San Antonio, Texas; Billings, Montana; Greeley, Colorado; Rochester, Minnesota; Scarsdale, New York; Groton, Connecticut; and Plainfield, New Jersey. There is a kind of educational osmosis going on in these centers in regard to the use of cumulative record cards and the function of the tests. The enterprise has been under the general direction of Dr. Anna Rose Hawkes and of Dr. Wood.

Mr. Charles B. Weld, The Taft School, Chairman, Committee on Relations Between Elementary and Secondary Schools

The Committee on the Relations between Elementary and Secondary Schools held its annual meeting last night. This Committee has been active in urging the maintenance of cumulative records of comparable test measures and their use in transfer from school to school and from school to college as a valuable aid to officers of admissions and to guidance departments. This matter of impressing upon the schools the important part that these cumulative records could play in effecting this transfer of pupils has been done for the most part by sending to the member schools and others interested, resolutions drawn up by the Committee, questionnaires, and the request that the schools place in their catalogs the statement that such cumulative records are desired as a part of the evidence to be submitted in behalf of candidates for admission. The committee feels that much has been accomplished in bringing to the attention of the schools the use that can be made of the scholastic aptitude and achievement tests of the Bureau.

The Committee had a very interesting discussion as to what it could now do in bringing to the attention of headmasters and the faculties of schools the uses that can be made of the testing program, not alone in effecting transfer of pupils from one school to another but particularly in the guidance of pupils within schools. It was thought that if certain teachers in the schools who have used the tests could explain what they have done it would do much to bring about interest on the part of others, so that in time there may be available in the Educational Records Bureau a cumulative record for every pupil from the elementary grades up. A committee was therefore appointed composed of Dr. Parkman of St. Mark's, Mr. Fisher of St. Paul's, and Mr. Weld of The Taft School, to set up whatever machinery may be necessary in order to arrange visits by teachers who have used the tests with schools that may be anxious to hear more of the practical, homely details of the help that these tests and records can be.

It is the feeling of the Committee that this action should not be looked upon as missionary work on the part of schools that have used the testing program. It should be looked upon rather as more or less of a selfish procedure on the part of those making the contacts with the other schools. For, with a more universal use of the tests, benefits will directly come to the schools now using them, as can readily be seen. Just at present, for instance, there is a growing demand on the part of the schools for an early preliminary testing of the objective type to assist them in the selection of incoming students. As soon as the regular testing program is universally adopted the need of such preliminary testing of course will no longer exist.

*Dr. John A. Lester, Friends Council on Education, Chairman
of Committee on Tests and Measurements*

The members of the Committee on Tests and Measurements discussed at length yesterday afternoon the matter of test selection and other problems related to the Bureau's annual testing programs of next spring and fall. The Committee

is satisfied that the Cooperative tests are the most suitable series of comparable achievement tests available for the academic subjects of the secondary grades and feels that they should be continued. In regard to the fall tests of academic aptitude, the schools in general seem well pleased with the American Council Psychological Examination, and the Committee recommends its continuance for grades 9 through 12. After some question with regard to a reading test, the Committee has recommended Form B of the Iowa Advanced test for the next fall program. The Committee recommends the wider use of the Strong Vocational Interest Tests and calls attention to the new Strong Vocational Interest Test for Women which is now available.

It was proposed that the Educational Records Bureau should bring into being a small body of people who might be interested in studying such tests as the Wrightstone tests and the new efforts that Dr. Tylor is making to evaluate some of the objectives of the schools, with a view to determining the appropriateness of such supplementary testing materials for inclusion in the Bureau's testing programs.

After considerable discussion it was decided to recommend the continued use of the Metropolitan Achievement Tests for the spring achievement testing in the elementary grades. New tables of norms are being developed which will make comparable the scores on the different forms of the test, and this should facilitate its use. The Committee recommends the Cooperative tests in English for grade 8, in spite of the fact that eighth graders make rather low scores. This difficulty requires what Mr. Hilbert calls "tact in testing" and can be dealt with by explaining to the pupils that this is a test which will measure continuous growth. We also recommend the continuation of the Cooperative Junior French and Latin tests in grades 7, 8 and 9 and experimentation with the Cooperative General Science tests and American History tests in these grades.

For measuring academic aptitude in the elementary grades we recommend the Kuhlmann-Anderson intelligence test for

use next fall, although we realize that this is not a perfect test for our purposes. We also recommend the continued use of the Progressive Achievement Test, Form C, and if an additional reading test is necessary we recommend the Gates reading test. The "California Test of Mental Maturity," a new test in the making, was discussed, and it was agreed that the Committee should cooperate with the authors to the extent of suggesting it for try-out in a few schools.

We have been immensely impressed with the devotion to the interests of the Educational Records Bureau of so large a proportion of its membership in this whole matter of the administering of tests. However, we have also been very much concerned with the fact that some member schools enjoy the advantages coincident to cooperative enterprises such as the Bureau's annual testing programs without making any commensurate contribution, and we should like to re-emphasize the points made in two previous reports (1) that all schools should seriously consider the cooperative element in this enterprise which cannot indefinitely be maintained unless the work is shared equally, and (2) that all schools utilizing the materials of the Bureau should contribute as much as possible of their just share of its support.

Symposium

Experiences of Schools Holding Membership in the Educational Records Bureau

THE VALUE OF THE EDUCATIONAL RECORDS BUREAU TO THE NEWLY APPOINTED HEADMASTER

R. J. SHORTLIDGE

The Pawling School

IN INTRODUCING this symposium I fear that my topic, "The Value of the Educational Records Bureau to the Newly Appointed Headmaster," gives me something of a strangle-hold advantage over three or four of the speakers that are to follow me in that I am tempted to trespass upon their specific fields of discussion. For instance, Mr. Chase has to do with the study of individual boys with the help of the new tests, and Miss Wilson has, as a topic, "Administrative Values of Testing," and Colonel Davidson, "Practical Uses of Test Scores." All of these topics involve values that the newly appointed headmaster may find in the services of the Educational Records Bureau. But instead of stealing their thunder I shall try to confine myself to the general spirit of the support to be found in the Educational Records Bureau for any headmaster, whether newly appointed or merely born that way. And headmasters are probably really born that way. But, as they grow through years of subjective preparation, they come to a point of requiring outside help in their administrative duties. And the Records Bureau gives that outside help in an objective way that is inestimably valuable.

Let me give you an instance of what I mean. In the part of the world I come from, anecdotes persist in regard to a great scholar and a great man who tried to run a school. It was said of him by a neighbor, "He is a mighty knowin' fellow,

he has got a powerful lot of learnin', but he hasn't Mother Wit enough to navigate a school." Of a full life a poet says, "How good is man's life, the mere living, how fit to employ all the heart and the soul and the senses forever in joy." I paraphrase that for our purpose: "How full is the headmaster's life, the mere living, how fit to employ all the heart and the soul and the senses forever."

There are three divisions of the headmaster's service, those of the heart, the soul, and the senses. The old schoolmaster to whom I referred possessed the first two. He did some fine things; among his students were those who became valuable men, some of them educators, some well known in the industrial world. But also he made a lot of mistakes. For instance, one boy of his he regarded as essentially without brains, for this boy could do neither Latin nor Greek, therefore nothing. However, he did happen to grow up and later he became distinguished mostly because he did not make good at school. He had to leave school. He went home and turned to the farm, where he found in mathematics involved in surveying and measuring the fields an interest which led him into engineering, where he became a creative pioneer. The schoolmaster, with all his heart and soul, had misjudged him; this boy had been unable to do the academic things he was supposed to do. What that schoolmaster needed was the Educational Records Bureau to supply the senses in objective measurements. He could have discovered that mathematical ability and saved a lot of time and anguish for that boy. I do not mean to take away from the effectiveness of the heart and the soul, for that is basic; but our emotional judgments are not always too sound; they see only in part. We can get the right guidance for our judgments in the unfaltering good sense found in right use of the objective testing programs that are developing today.

If I were to define as briefly as possible the central aid of the Educational Records Bureau, I would say to the newly appointed headmaster, "Meet Mrs. Wood." From her and from the Bureau come the valid results of testing that serve as a point of departure in individual and group matters. You

know where you are if you use the comparable objective tests and other valuable aids of the Bureau. Somewhere in George Eliot is a description of a young man who could see the other side of a barn door, and of whom it was said that that might be the reason he could see so little on this side of it. Very often, led by our feelings, we penetrate too far through the closed door, whereas we can get from the Bureau some very accurate information on this side of it. "There is no art to find the mind's construction in the face," was not written in the field of schoolmastering, but it defines an excellent pedagogical principle. As schoolmasters we must acknowledge that the construction of the mind is a very involved and difficult thing for us to define, analyze, lay out before us on paper, and know whether or not we are applying our work and attention and care to values of educative effect on the qualities of the mind that will enrich it and make it stronger.

A boy applies to the young headmaster. As in a recent experience of mine, such a boy may have had training in courses abroad, in language, English, literature, art. The breadth of his experience, the courses he has had, the outside interests to which he has given himself, the cultural influence which he has shared so largely in fields of art and music, scarcely adapt themselves to any subjective method by which the schoolmaster can judge him. But, by means of objective tests, one can get a pretty good line on what that boy can do. At first view we felt him a good candidate for four years of preparation. His objective scores were most irregular, some top-notch, some lower. It was perfectly evident that his especial ability in certain directions would allow us to speed him up beyond his present level in a lot of things. In the end we were able to organize his work so that he could prepare for M. I. T. in three years instead of the four. Or here is the case of a boy who came with a uniformly high record in all of his past school work; he had passed examinations in mathematics and science with high results, and we assumed by analogy that he would be good also in the language requirements that he had to face in the coming year. But in a few weeks of experience we found no power in the latter fields.

Then came the results of the fall testing program of the Educational Records Bureau. We could on the basis of these results limit the time in the mathematics and the science and double it in the languages, so that we could reconstruct the boy's program, strengthen the weak places, and develop a plan to hold him up in his general level.

I do not mean to read too much into these special cases. The discussions that follow will probably develop illustrative materials in specific fields. Each new headmaster must learn to use such aids, to apply them to individual or group needs. In going to a new school this fall, with a preponderating number of new boys in the school, it was a pretty miscellaneous crowd to be organized into homogeneous groups, to be fitted properly into their various class subjects, and to be arranged in right levels in those subjects. Out of my experience I would challenge any headmaster, new or old, to do such a job on his own judgment; that is, to do it effectively. With the aid of the Educational Records Bureau tests, one can pour his heart and soul into it with immediate hope of some rational results. By means of these tests a headmaster can find guidance which will prevent loss to many a boy. As an instance in point, we had a boy who on the score of his past preparation and also distance from school training in the subject, expected to take second year French. A subjective test seemed reasonably to place the boy at that level. In the Educational Records Bureau test, however, we found him with a 95th percentile among boys asking to enter third-year French. Now this boy's other subjects were low, but it was perfectly easy to see from the French percentile that he had power in that field. We were able to jump him ahead in French and save time for an additional unit in another field in which he was not so well prepared. That one change relieves his whole program of preparation for college as outlined on a three-year basis. Here was a solution that no headmaster, for all of his heart and soul, could possibly have arrived at so quickly single handed. The results of the Educational Records Bureau provided a guiding sense not otherwise available.

From this brief discussion, then, I urge a new headmaster to look upon the Educational Records Bureau tests as the third essential factor in a strong triangle of judgment. The heart and the soul are still the basis for anyone entering the job of headmastering. No headmaster can rely on anyone else's heart and soul but his own; he has to have his own enthusiasms, his own power, his own determination and confidence in what he can do. But when he turns to the third factor, critical judgment, ability to penetrate individual needs from the outside, I doubt whether he can find anywhere else the aid offered by the Bureau, and I commend the Bureau with that enthusiastic estimate.

There is one final caution. It may be illustrated by the case of a boy who, in my school some years ago, worked endlessly. I said to the masters, "He is a laborer; don't stop his labors; let him work all night if he wants to, and forget rules about bed time, for he can take it; he is slow, but he will get there; he has character which will carry him through." This boy did get there. Just before sending him to college, we found he had an I. Q. of 92 on a Terman group test. Had we seen that record some years earlier, we might have urged this boy not to go to college. But he had passed the College Board examinations creditably. He went, and he was on the dean's list of an exacting college for three years. Talking later with Dr. Alfred Adler about I. Q.'s, I asked him whether he believed in them. He told me the circumstances of his own difficulties in the grades, especially in mathematics, and then said, "Yes. But I believe in human character more." The case cited is an instance of that character. No testing programs can supersede such character. But none the less they are the point of departure for any headmaster, a cleared area of understanding in regard to basic needs of any student, where one can begin accurately to judge and then to act.

This morning, talking baseball with my very small son, I was asked what a home base was. His sister said it was the spot where you score. And that is what might be said of the Educational Records Bureau.

SCHOOL GRADES AND TEST SCORES

FRANK C. WHEELER

The Choate School

ALMOST from the beginning, we at Choate have tried to use the scores derived from the Educational Records Bureau tests as a means of rating our pupils not only on the basis of our expectations as to their probable success, but also on the basis of percentages corresponding to the school grades given for the term or for the year. If the tests are valid measures, as we believe them to be, they aid in determining the pupil's proficiency and knowledge in a subject, as compared with the tested achievement of a representative number of independent school pupils tested in the same subject and in the same school grades. We believe, furthermore, that these measures are as reliable as any that could be furnished by a single test of similar length. School grades, I take it, measure largely something different, namely, the conscientious fulfillment by the pupil of the teacher's directions. The reliability and validity of school grades, as commonly determined, depend entirely upon the standards of the teacher and of the school. Because of the different factors involved in the two types of measurements, and because it is often desirable that the school grades be a reliable measure of the student's achievement, it is useful to compare the objective scores with the subjective grades. Such a comparison helps to evaluate the standards of a teacher and to bring them into closer conformity with the standards of other teachers and also, indirectly, to show to some extent whether the conscientious fulfillment of his directions results in measurable proficiency and knowledge on the part of the pupil.

Probably the best comparison of the school grades with the test scores would be by means of a long continued study of cumulative records, but it can be accomplished in part by a comparison of the scores of a single year with the grades of that year. The method we have followed at Choate is arbitrary, and probably unscientific, but it has resulted in arriving at term grades which are comparable with the grades made by the same pupils in the same subjects during other

terms of the year. We use the objective tests of the Bureau in place of our examinations of the third quarter, in order to eliminate one testing period. We are compelled to have grades that are understandable to boys and parents, because at the end of each quarter we send out complete reports of each boy's standing and his masters' opinions of his work, and we have not yet tried to educate our parents in percentiles and sigmas. Our procedure is as follows: before the tests are given we ascertain from the masters in each subject the number of expected failures, the highest and lowest grades, and the median grade. We unite the test results for the various sections of each class into one group. When the scores are returned to us, we make a graph of them, of which I have here a sample. I am sorry it cannot be visible to all in the room. On this graph, we plot the scores on a vertical scale. The lowest expected grade is put opposite the lowest score, the median grade opposite the median score, and the highest grade opposite the highest score. We then count up from the bottom the number of failures, and the next higher score is equated to the passing grade which at Choate is 65 per cent. This graph which I have here is for an English class in our Fourth Form, numbering eighty-one pupils. The scores are those of the tests in English and Literary Acquaintance added together and range from 85 to 278. Twelve failures were demanded by the teachers of English IV, and the lowest expected grade was forty-five. We, therefore, space from the score of eighty-five twenty equal intervals up to the score of one hundred and twenty-one, which becomes the minimum passing score in this class. Thus, the twelve failing grades are read off as they fall in this graph. The next division, between sixty-five, the passing grade, and seventy-three, the median grade, is similarly divided into eight equal intervals. Then the space from seventy-three to ninety-five we divide into twenty-two equal intervals, and check our work. We find that the intervals between sixty-five and ninety-five are fairly even, while those below sixty-five are somewhat crowded, because the range of the failing scores is not as great as it often is in some classes. From the intervals marked

off as I have described, the grades can now be read and recorded.

We have found that the grades arrived at by this arbitrary and mathematical method are usually more descriptive of the daily work of these pupils than the grades given on our own examinations in other quarters. We are still not satisfied that we have arrived at the best system of grading, for when we check our results by the use of the percentiles furnished by the Bureau, we find a wide divergence in the standards required by the different departments for passing. We shall attempt to remedy this situation next year by the use of the percentiles of the previous April, experimentally requiring a minimum passing percentile in each subject. This check-up and correction of the varying standards within the school may prove beneficial. I have already discovered that there is some correlation between this variation and the varying success of the different departments on the College Entrance Board Examinations, though I must not push this deduction too far. Any improvement in the standardization of the grades from these scores may give us more effective warning of possible failures on the College Board Examinations and, hence, help us to reduce the number of those failures by specific work on individual pupils.

The grades which we have reached by our peculiar graphic method from the scores tend to steady our year's marking by calling attention to possible differences between our own estimate of the boys' progress and the measure furnished by this outside and impersonal measuring device. Though the grades on these examinations ultimately count only one-ninth of the year's mark, they tend to influence all subsequent judgments of the pupil's progress, especially if they differ much from his usual grades. In this way, they either add conviction to our own judgments, or cause us to revise them. Even though our standards are largely set by the College Board, whose marking scale becomes pretty much ours because every department has been represented on the staff of readers of the College Board, we find the study of the test scores in comparison with our ordinary grades extremely valuable to both teachers and pupils.

The subsequent use of the objectives scores through percentiles is pretty constant. It tends to balance and interpret our estimate of our students, so that their actual school grades arrived at in other ways are not an undue influence on our choice of their future studies, and our decision in regard to their promotion. This is doubly important in our school, for we divide every class which can be so divided into slow, medium, fast, and honors sections. The percentiles of the Bureau enable us to discover bright pupils, even when masked under a cloak of laziness. We have found that the bright loafer is more apt to get good grades in these tests than the industrious dullard, who may be favored in the teacher's own estimates. The added incentive of success in these tests is used to persuade the bright boy to do his best at all times, to place him in the proper environment with good competition in a better class, or to discover again his real interests in order to make his work more effective.

Dull and average pupils are also benefited, for we are often forewarned of the possibility of failure in time to take additional steps to prevent it. We have been convinced of the close correlation between the test scores and the grades to be expected in our final examinations and the College Board Examinations.

It may be beside the point of this paper, but I cannot help mentioning the fact that we do not believe at all that our aims in teaching are affected by the inclusion of these objective tests in our program. The experienced teachers on our faculty are unanimous in demanding this outside check on their own marking. They desire it not to standardize their teaching, but to evaluate it. We do not, any more than for any other examinations of the year, change our method of teaching or its content as we approach these objective tests.

We believe we have gained a great deal of information, even in our clumsy way, of forming grades from the scores of the tests, and we believe that as we complete the establishment of the cumulative cards as a part of our school record, and learn to interpret the graphic portrayal of test scores in close connection with the school grades for the year, we shall

greatly improve our ability to judge our pupils, to predict their success, and to arrange their studies in the right way.

A PRACTICAL USE FOR TEST SCORES

A. B. LEWIS

Northwestern Military and Naval Academy

I FIND that my paper is in a very fortunate position on the program in that it follows Mr. Wheeler's. At Northwestern for the past four years, we, also, have used the achievement tests of the Educational Records Bureau in the place of our third quarter examinations. Many of Mr. Wheeler's comments make it unnecessary for me to go over the same material, for which I am very glad. But I would like to call your attention to one phase in which Mr. Wheeler's experience has differed from ours: that is, in the translation of raw scores into school grades. Relative to this, our reason for substituting objective tests for the teacher's examinations is not only the same as Mr. Wheeler's, but, in addition, we have found it a great stimulus in our academic work to have one test independent of the teacher.

This is not meant as a reflection on the teacher's procedures. This substitution is a game to the boys; they enjoy feeling that they are going to have a test in which the teacher has no part, either in the making or grading. For that reason it is necessary for us to have the Bureau score the tests. We, of course, cannot score our own tests. It seems to us that the point at which we break down is in the interpretation or translation of the raw scores, which we have had to leave to our departments. We have come to feel that some authoritative evaluation of test scores in terms of percentage grades would be a great help to us and would make this program more effective. Moreover we believe, that unless such a system is established, we shall soon be forced to give up this practice for its value seems to us to depend upon an evaluation of the test scores which the boys will accept as fair and adequate.

Now, we believe that, given the cooperation of member

schools, the Educational Records Bureau could provide such an evaluation. It would be the purpose of such a study to produce norms (probably within a certain range) in terms of percentile ratings, which would correspond to the school grade for a passing mark, for college certification, and for an honor grade. These norms, we believe, could be thought of as those of a mythical *good* school of *national* aspect, provided, of course, that a sufficient number of schools are interested. This imaginary school is to be a composite or average school of its particular group.

In making such a study, it seems to us the following points should be observed in so far as possible:

First, the schools participating should be divided into groups as to curriculum and enrollment. For example, in one group would be included boys' college preparatory schools; in another, if there is sufficient interest, college preparatory girls' schools. Another group might consist of coeducational schools, partly college preparatory and partly vocational, as to curriculum. In other words, we believe that schools must be very similar in character and purpose in order for the study to be a success.

Second, the study should include only the classes which are carried by the entire enrollment of the grade, that is, for example, 9th grade English, algebra and plane geometry.

Third, the identity of schools participating need not be revealed. This could be done by the use of numbers and by treating all correspondence as confidential.

Fourth, the expense should be shared by participating schools.

Fifth, and finally, the material to be sent by the schools to the Bureau should include an explanation of the grading systems of individual schools, and of the records (probably covering the past three or four years) showing the percentages of pupils in these designated subjects who have failed to pass, who have earned passing, college certification, and honor grades. Of course, any other material which the Bureau might need to make the study effective should also be sent.

We believe at Northwestern that such a study, conducted along these lines, would establish valid norms, which would

give us the desired method of translating test scores, and we believe that such a method would be a distinct contribution to the effectiveness of the Educational Records Bureau achievement test program.

THE USE OF THE BUREAU'S FACILITIES IN THE AWARD OF SCHOLARSHIPS

FREDERICK WINSOR

Middlesex School

BEFORE I attack my specific subject, I shall have to explain a little about this scholarship competition we inaugurated last spring. We announced that we should award fifteen scholarships on a competitive basis, with a certain geographical distribution and a certain distribution in the different classes of the school. We agreed to take three pupils from each of the five main geographic districts of the country, dividing the country into three districts along the northern border, and adding the southwest and the southeast. We agreed to take into what corresponds to the tenth grade, five pupils; four into the ninth grade; and three each into the eighth and seventh grades. It made rather a complicated award. We had 101 applicants for these fifteen scholarships, of whom 96 actually took the examinations. That presented us with a pretty serious problem—How were we going to choose the fifteen winners? We decided that first we would ask the Educational Records Bureau to conduct an examination for us which would indicate the relative scholastic promise of the candidate.

For that purpose, the Bureau suggested for applicants for admission to our tenth grade, the American Council Psychological Examination, the Cooperative English examination, Series 2, and the Cooperative Elementary Algebra examination. We, however, did not take the results of this third examination into account; we gave it to satisfy our own curiosity. For applicants to our classes corresponding to the seventh, eighth and ninth grades appropriate batteries of the Kuhl-

mann-Anderson Intelligence Tests and of the New Stanford Achievement Tests were used.

Those examinations were held on the 1st of April, which was not such a joke as it sounds. They were held in forty-two different centers in this country. The centers were scattered from Maine to California, and from Oregon to Georgia. I returned from my spring vacation, arrived in New York on April 11th, and the scores were all in my hands on that day, with not only the percentile ratings in relation to the whole private school population of comparable ages, but there was also a chart showing their standing on the basis of percentile ratings of our own school. This picture of all these candidates that was thus placed before us seemed to me a very remarkable achievement.

It may interest you to know that this autumn the boys who won these scholarships—along with the rest of the school—took the scholastic aptitude tests of the Bureau (actually we had awarded eighteen scholarships, for reasons I won't take the time to discuss), and of the eighteen boys, all but one showed results that were in line with the tests given by the Bureau last spring. Now, of course, we all know that the test scores of any boy on any one occasion may, for any one of a number of different reasons, be out of line with his real ability and his usual test results. Thus these tests this autumn serve to indicate that the tests taken last spring were pretty reliable estimates of the scholastic promise of these boys.

If the Bureau had not existed, I don't know how we should have gone to work to award those scholarships, for we could not possibly have conducted that series of tests ourselves. The existence of the Bureau made it possible.

May I take just enough time to add, in connection with these scholarships, that, of course, we did not award the scholarships solely on the basis of the scholastic promise and tested achievement of these boys. Of the ninety-six who took the tests, thirty-three ranked in the top tenth of the private school population, and we took the names of those thirty-three and said, "These boys are all scholastically good ma-

terial. Now let us judge on other grounds and decide which boys are the most promising of these thirty-three." And the items we took into account in making that final judgment were personality (including environment and heredity), scholastic promise and achievement as shown by the examinations, the geographical distribution which we had promised, and the distribution by classes in the school, which we had also promised. That was a very complicated set of requirements to reconcile among themselves, and yet it worked out so that, as I recollect, there were only two boys who did not receive awards who might have received them if we had not been considering either geographical distribution or distribution by classes in the school. All but one of the boys selected should rank in the top tenth of our school, I should think. I am not requiring that they shall have any such rank throughout their progress at the school to retain their scholarships; all I am going to require is that they shall stand in the first half of the class, and that we shall find them hard-working and conscientious.

Finally, it seems to me, in connection with the award of such scholarships, that we have in the Bureau an agency that could act for all schools that might wish to award such scholarships; that the examinations for a dozen different schools might be put in the hands of the Bureau; that they might all be held at one time so that there would be no duplication of the machinery; and that the boys applying for scholarships at a dozen different schools might come together to take such examinations, each making his application for the school of his choice. The tests would be graded by the Bureau and then sent to the school to which the boys were applying.

One of my hopes when we inaugurated these scholarships was that the plan would be copied by other schools. The plan was not entirely new, but nothing quite like it had been done before. I was afraid, however, that there might be a scramble for promising boys by different schools in competition. It seems to me that the Bureau gives us an agency that would obviate any such scramble; that we can work not in competition, but in cooperation, through the Bureau.

THE ACHIEVEMENT OF SECONDARY SCHOOL PUPILS ON COLLEGE SCIENCE TESTS

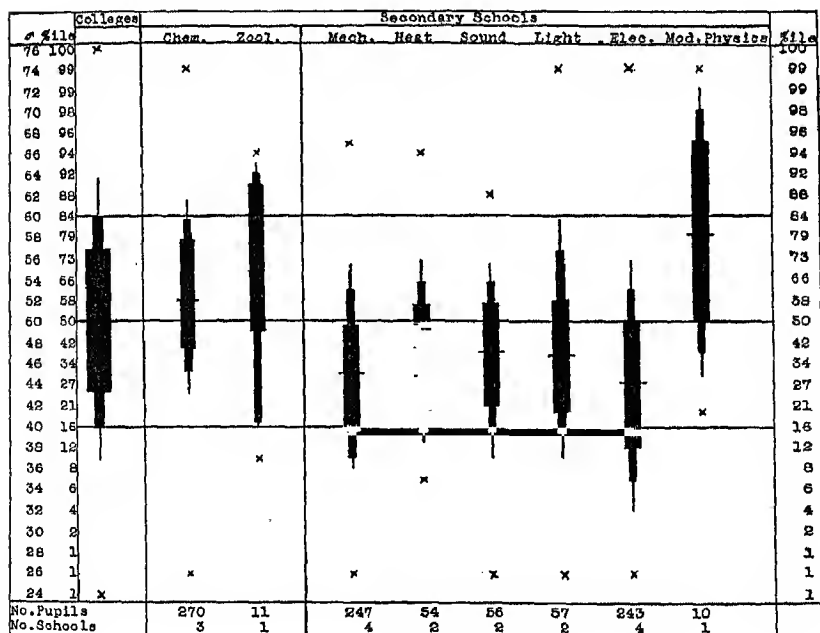
ALTON R. HYATT

Lawrenceville School

LAST spring five secondary schools, Exeter, Andover, Hill, Milton and Lawrenceville, accepted the invitation of the Cooperative Test Service to participate in the 1935 testing program of the American Council on Education by giving to their students certain of the college science tests used in the 1935 College Sophomore Testing Program. The following tests were used: Chemistry, Part C, Composite; Zoology, Part C, Composite; Mechanics, Heat, Sound, Light, Electricity, Modern Physics.

The results of these tests are shown in the accompanying chart. The national median is shown across the chart by the middle horizontal line. The other two horizontal lines repre-

COLLEGE SCIENCE TESTS IN SECONDARY SCHOOLS



sent plus and minus one standard deviation. The black bar to the left represents the distribution for the total number of college science students that were included in the tests. One hundred thirty-two colleges sent in reports of their results in the physics tests and some thirty-five colleges reported the chemistry tests. The middle portion of this bar represents the range of the middle 50 per cent of the scores. The narrower portion extends up to the 84th percentile and down to the 16th, and the line up to the 90th percentile and down to the 10th. The crosses represent the extreme scores—high and low. The other bars in this chart, which represent secondary school scores in the different tests, may be interpreted in the same manner. The short horizontal line near the center of each bar represents the average score of each of the various groups. The figures at the bottom represent the numbers of students tested.

It appears from these tests that one-fourth of all of the secondary school pupils taking the college tests were above the average of the college students reported in every test, that two-thirds of all the secondary school pupils tested were above the average of the college students' scores in three of the tests, and that in two of the tests three-fourths of the secondary school pupils had scores above the average of the college scores. More specifically, in chemistry 56 per cent of the pupils in secondary schools had an average higher than the college students who had completed a course in college chemistry. In zoology 70 per cent, in mechanics 22 per cent, in heat 47 per cent, in electricity 25 per cent, and in modern physics 75 per cent of the schoolboys exceeded the average of college students' scores on the same test.

Looking at it in another way, and this to secondary school administrators is more important, in chemistry 7 per cent, or roughly estimated twenty pupils, of the secondary school group ranked in the highest 10 per cent of the college group. Twenty pupils of three schools, therefore, ranked very high in the college chemistry test. In mechanics and electricity 1 per cent of preparatory school students ranked in the highest 10 per cent of the college group, and by grouping modern physics and zoology together, 25 per cent of those pupils ranked in the

highest 10 per cent of the college group. Note the very high percentiles reached in chemistry, electricity and modern physics. What to do with these high ranking pupils in college is of course the big question. Some colleges are meeting this situation with encouraging results, others have not apparently been alive to the possibilities of these superior students.

We, at Lawrenceville, are very much interested in this type of boy. We had five boys who reached as high as 91 on our final school grading in physics, but our own grading and testing did not bring out the fact that we had one pupil who reached the 99th percentile in competition with a large number of college students.

Criticism of the results in the chemistry test has been made by some college people to the effect that secondary school pupils did better than college pupils because the particular test given was so constructed that it put a premium on information and terminology, and did not take into account the factor of reasoning and application of principles. But this criticism does not bear analysis. On section 1, information, the independent school median is at the 57th percentile; on section 2, terminology, at the 56th percentile; and on section 3, the application of principles, where secondary school pupils were supposed to be inferior to college students, the independent school median is at the 65th percentile. The Cooperative Test Service has rendered a distinct service in providing us with this additional information about the result of these science tests.

It is obvious that there exists a large number of secondary school pupils who have exceeded the achievement of the college science students tested in this program. This is not entirely new information, but it is interesting to have the results shown so graphically. Secondly, it is obvious that many pupils of secondary school age are more able and are better prepared to do advanced work in college science than many college students who have just completed a course in science. It seems reasonable to expect that these same secondary pupils might do equally superior work in other departments, and hence there exists the possibility that some of these particularly

bright pupils might be admitted directly to Sophomore Year and in rare cases to Junior Year classes.

THE STRONG VOCATIONAL INTEREST TEST AND ITS USE IN SECONDARY SCHOOLS

IRA A. FLINNER
Northwood School

(Space limitations necessitate the omission of slides illustrating the tested interests of Northwood students.)

ANY device which helps in the vocational guidance of boys is welcomed by school heads and others who have similar responsibilities. The Strong Vocational Interest Test promises to render some aid to boys and men in indicating to them the vocations which are most likely to be compatible with their interests. The test devised by Professor Strong of Leland Stanford University is not an aptitude test, but a test devised to discover the extent to which an individual's tested interests agree with the tested interests of men known to be successful in various vocations. Through his studies Professor Strong found that men engaged in a particular vocation have a characteristic pattern of likes and dislikes which distinguish them from men following other professions. It is assumed that a man will be more effective in his vocational career if, other things being equal, he is engaged in one that he likes than if he is forced to do a great many things that he dislikes. The likes and dislikes of a considerable number of mature successful men in some thirty vocations are a matter of record. If the individual of high school or college age who takes the Strong test has likes and dislikes similar to those of an engineer, the assumption is that, other things being equal, he will be more successful in the field of engineering than in some field which clashes with his likes and dislikes.

The Strong test has been used with a large number of high school seniors, college students, and men outside of schools, and the results so far obtained indicate that the test may have considerable guidance value if judiciously used. The validity of the test, however, cannot be determined until those who have taken it have been followed a number of years to discover

whether they are successful in the vocation in which some time before they expressed a marked interest.

For the benefit of those not familiar with the test let me state that it is made up of 420 items, most of which can be answered in one of three ways. The subject is asked whether he likes, dislikes, or is indifferent to, say, item 25, which might be studying mathematics, being a lawyer, repairing a clock, playing golf or taking part in a play. Weights have been assigned to all answers and total scores for each of thirty vocations are readily obtainable. Preference is usually expressed through this process of registering likes and dislikes for a number of vocations which often are more or less related like engineer, mathematician, physicist. The subject generally scores relatively high in three or four vocations and shows some correspondence with the interests of several more criterion groups. In most of the thirty vocations for which scoring scales are now available, however, his score is likely to be low, indicating no special preference. When the numerical scores for any particular subject have been determined, they are given for each vocation in terms of A, B, and C ratings. The A and C ratings are significant, since, in any vocation where an A rating is recorded, the score means that the likes and dislikes coincide with the likes and dislikes of three-fourths of the mature, successful men in that vocation. In the case of C ratings the likes and dislikes coincide with those of less than 2 per cent of the control group. B ratings give the least information of value since they are neither positive nor negative and coincide with the tested interests of less than 25 per cent of the mature group whose likes and dislikes are known.

The test does not have real value for all high school seniors because some senior boys do not have strong likes and dislikes, with the result that no particular vocations receive a high score. In the case of most college men, especially seniors, with strong convictions, and matured interests, the results are probably of more value. Men already graduated from college and engaged in some work tend to express themselves very definitely, and seem to make A scores more frequently than younger, less mature men.

At Northwood we have been using the Strong test with two different groups, seniors and graduates. All boys in the senior class take the test at the beginning of the fall term, and the results become the basis for discussions on vocations throughout the year. I meet the group for a number of general sessions where vocations are considered and where the Strong test is explained. I later meet groups of boys interested in the same vocations, and then meet them individually. Each senior presents to the entire student body a 10 to 15-minute talk on one of the vocations which interest him most. In this way, over a period of years, the most important vocations become familiar to the student body and quite familiar to the senior class. Themes in English courses on other vocations result in considerable general and special study. In all this work the object is to induce the boys to study all aspects of the problem of choosing a suitable vocation or profession. It is, of course, obvious that the choice should not be made solely on the basis of tested interests, even if the test were perfectly valid as a measure of vocational interest patterns.

I have recently given the Strong test to 100 Northwood graduates in classes 1926 to 1934. These boys are either in college, have completed their college courses, or are now attending professional schools, or engaged in some productive work.

I am convinced that the Strong test has real merit. I base this conclusion on my intimate knowledge of the seniors in the school and the hundred graduates who took the test. The data obtained through the Strong test coincide in a very large percentage of cases with the data obtained in other ways.

Like all tests, the Strong test has its defects. It must be used with judgment and in connection with other important data. It does provide the vocational counselor with important information.

STUDYING INDIVIDUAL BOYS WITH THE HELP OF THE NEW TESTS

C. THURSTON CHASE, JR.

Eaglebrook School

IT HAS been our experience at Eaglebrook that the Educational Records Bureau has helped us to turn the

lamented problem boy to normal with a minimum of disturbing attention and to give the normal boy much guidance that we could not possibly provide, without the tests coupled with the Bureau's advice and whole-hearted cooperation. My remarks are based on the experience of a junior boarding school of 80 students, between the ages of 7 and 15, with an average I.Q. of from 115 to 117, preparing for the most exacting among the New England secondary boarding schools. I hope my subjectivity will be forgiven.

In the fall, after the boys have had a week or ten days to acclimate themselves, we give the Bureau's entire fall program of intelligence tests, reading tests, and Progressive Achievement Tests. To the 8th and 9th grades we administer the Cooperative Tests. All of these are returned within a week, scored and with tentative independent school percentiles.

Immediately, glaring errors of placement of new boys—some suspected, others not—are revealed and the necessary class changes can be made. A very flexible schedule permits us to meet individual needs with made-to-measure programs. Classes are normally limited to 10.

Boys who vary markedly from the group are then considered separately. The diagnostic chart on the reverse of the Progressive Achievement Test profile is made out as a guide for remedial teaching, either in groups, or by individual tutoring. Frequently, this diagnosis takes several weeks of teaching time, due to its meticulous detail. At other times, as in the case of specific reading disabilities, it must be supplemented by individually administered tests. We concur with Dr. Samuel Orton that more than 10 per cent of boys fall into the classification of pupils who suffer unnecessary retardation of from one to three years.

We couple, with the fall achievement testing program, a subjective analysis of each boy's study habits, conducted for two weeks by all teachers. The evidence collected by the teachers is discussed in conjunction with that of the objective tests. Placement is revised in the light of both achievement and ability indices. Each class is then taught by the techniques and at the speed indicated by this evidence.

Vocabulary work is instituted throughout the school, allow-

ing the boys to know its aims. In this work we use Mr. Johnson O'Connor's tests, which can be secured through the Bureau. English classes supplement usual dictionary and word study by various exercises intended to strengthen the associations between recognition and useful vocabulary, both auditory and visual. We conducted an interesting experiment on the theory that new vocabulary could best be acquired by association with boys at approximately the same level of vocabulary development. Table seatings in the dining room were arranged, without the boys' knowledge, on this basis. At first, it created many curious companionships. You may imagine our surprise as these developed into the most congenial table seatings we had ever arranged. At the end of the year, we discovered that we had increased our previous average vocabulary gain.

A few individual cases, undoubtedly paralleled in the experience of every school, may be in point.

C. S. came to us from a large public school in a Connecticut town. His confusion and bewilderment was so great in every class, except mathematics, that he rapidly developed as a problem case. Tests showed him, on entering our 7th grade, to be at the 11th grade level in mathematics and at the 4th grade level in the reading and language skills—an obvious specific reading disability. He was re-classified and tutored. Test results at the end of the year indicated that he had largely overcome his retardation in all the language skills except spelling, and was able to go on with a normal program.

R. T. came from a social Virginia school. By his record, he had completed the 7th grade, with an average of 85 per cent. Tests showed him to vary in maturity and achievement between the 3rd and 5th grade levels. The family, ambitious for him, were unwilling to allow re-classification or tutoring, until confronted with the evidence of the Bureau's tests. After two and one-half years, he is back with his class. We find the Bureau tests of inestimable value in securing the cooperation of parents.

H. B. came from one of the best New York day schools, where he had been promoted three successive years on average grades of 50 per cent, 42 per cent and 21 per cent. The head-

master had assured the family that, some day, he would "get it" "in a flash"—he is still young. He wrote me that the boy seemed bright enough in conversation, but had "no academic talent or ability." Neither he, nor any of his teachers, had recognized that, for three years, the boy had been unable to read a word in his textbooks and that his I.Q. was 114, instead of the 92 shown by his group test.

M. R. came from a good New Jersey school, doing average work, but with the report that he was lazy. Tests showed him to be three years in advance of his class by the most exacting independent school standards. He was too young to be advanced more than a grade, but we gave him extra daily assignments, broadening his outlook and enriching the experience of the class. His interest was kept at a high pitch, and present indications are that he will make a brilliant secondary school record. Fortunately, his new school recognizes the need for challenge. One corollary of all the objective test work seems to me primarily important. The tests enable us so to guide boys that they may have a constant feeling of achievement. They can be guided with assurance and challenged to their capacity. If many a personality is saved from warping or frustration in this way, and I believe that many are thus saved within the schools that use the new tests, it is the Educational Records Bureau which we have to thank.

ADMINISTRATIVE VALUES OF TESTING

MIRA B. WILSON

Northfield Seminary

PERHAPS our only virtue as regards the use of tests lies in the fact that we have tried to be unprecipitate in drawing conclusions which aren't warranted as yet. Certainly in the field of advice to the individual students the tests can be counted upon in innumerable ways. Our particular school uses 21 of the faculty as advisers, each one advising about 25 pupils. The Director of Studies puts in the hands of each adviser the percentile ratings that her students secured in the last testing period. I admit that some advisers are

much more skillful than others in using those and the academic director has to do a lot of interpreting. Nevertheless, it seems to me there is a great gain for the work of advising in general.

One great value of the external measures seems to me its blessedly impersonal nature. One could duplicate stories of situations in which the ability to turn to a result come to, not by a Northfield teacher, but, by a blessedly impersonal bureau in New York, took the tenseness out of all sorts of situations. For instance, a 13½-year-old girl who came to us with a perfectly good record in arithmetic; she was to take algebra. Her father was a man of considerable intellectual prestige and under the impression that his daughter was an honor student in arithmetic. Our first findings showed that the girl was not well grounded in arithmetic, and were very discouraging indeed; and there would have been developed a considerable display of hostility at our putting the girl into arithmetic had it not been possible to turn at once to the test findings that came back from New York. Her father was quite ready to believe that she should do more arithmetic before beginning algebra.

In our school I think the tests are particularly helpful in the business of deciding what college should be advised for the individual. It happens that we send girls to some 45 or 50 women's colleges each year, and we find we are kept very busy trying to be even reasonably intelligent about the colleges. Each college is as different as one human personality from another in special emphasis, equipment, and demands upon a new student. Long before a girl comes up for the examinations by Plan B, these external tests, in conjunction with our own findings, do help us in suggesting to the parents what colleges should be investigated for their daughter. More important still, I suppose, is the finding, perhaps, that she shouldn't go to college at all; for if any heads of schools deserve any crowns at all, it is surely those who succeed in keeping some girls out of college. That brings me to the fact that one-third to one-half of our girls are not getting ready for college at all but for various technical

schools, and the inferences from the test results are helpful to us in vocational advising.

There is one second and last point that I venture upon with more temerity. A great deal of the time of any headmistress is spent not in advising students but in advising the faculty. I am persuaded that we can make more use of our tests in that way than we are doing. Some things are quite clear; for instance, the use of these tests in evaluating continuing subjects. We can note what happens to the same girl in Latin IIb as compared with Latin Ib, under the same and under different teachers, and the same with English Ib and English IIb and other subjects. One other study which we try to make is in the form of graphs to show the relation between the results in fall aptitude and the April testing and our June grades. Unlike the practice at Choate, we try to keep our teachers' marking system separate so that in the fall we can see what the relation is between the terminal June grades, the April testing results and the initial aptitude showings. If there is a very marked discrepancy, it seems to me safe to say that at least a good, thorough conference is called for. Some of our graphs show amazing and beautiful conformity; others show extraordinary divergence; and in extreme cases I feel justified in inquiring whether divergences of temperament have not entered into the picture. Just one illustration of the problem that I am working at right now: In one of our departments two of the teachers show the most extraordinary liberality in the use of the grade "C." They feel, perhaps, that generosity in that particular bolsters up academic standards. I think it shows too little discrimination between individuals. The only thing that can really come to my help as an argument is the actual arrangement of those classes on a graded scale as the results of the April testing give them to us. Much to my satisfaction, I think I have a fair argument from that evidence, that more discrimination is needed by those two teachers than they have yet developed in their grading system.

We feel indebted to the Bureau very greatly, and I personally have a pleasant sense of expectancy about its future usefulness to us.

PRELIMINARY EXAMINATIONS

THOMAS K. FISHER

St. Paul's School, Concord

THE idea which engendered the title assigned to me for discussion was that a secondary school might profitably use the modern achievement test and intelligence test as a preliminary examination of candidates in early March to sift the chaff from the wheat and so determine which boys could well take the final examinations for entrance on June 1st with fair hopes of success, and that those candidates with entirely inadequate preparation might be notified of the great unlikelihood of their acceptance in sufficient season for their parents to seek admission for their sons elsewhere before other entrance lists were closed. That the plan held distinct advantages for both the candidate and the school of his choice was obvious. That the preliminary examinations would turn out to be excellent final examinations on which to base unqualified acceptance or rejection was not so obvious to those unfamiliar with the possibilities of the present day achievement test. That achievement testing of far greater scope, to be recorded along with complete cumulative data on the whole boy from the time he enters the elementary school, through the secondary school, through college, and until the time of vocational or professional placement, is the only valid method of efficiently and fairly guiding the intellectual, personal, and social growth of the school child, has yet to be envisaged by the many in whose hands lies the destiny of American youth.

Why, then, has the building of a valid and reliable cumulative record been overlooked? Because of a lack of knowledge of modern achievement tests, because of ignorance in their use, because of failure to analyze results, as well as because of ex cathedra dispensations. To quote Dr. Ben D. Wood, "It is only too obvious that constructive, systematic, long-term guidance cannot become a reality unless active and hearty cooperation of the majority of school officers and teachers

replaces their present attitude, which is frequently one of active opposition, and almost never better than indifferent tolerance based on lack of understanding." "Much of the misunderstanding regarding objective, comparable tests is a direct inheritance from the customary misuse of the old type examinations, which in practice were largely flunking and passing devices, used to separate the sheep from the goats, but serving no really constructive purpose for either group."

That, therefore, we might have reliable and valid measurements of the progress of our entrance candidates in subject matter, that we might accurately compare their results with the results of other pupils in independent schools, that we might have a scientific measurement of their general intelligence, that we might rank them among themselves and among independent school pupils and with pupils of supposedly like attainment already exposed to our own school training, St. Paul's School of Concord, New Hampshire, gave modern achievement tests in subject matter and intelligence tests to all its entrance candidates on March 1 and 2, 1935. The results were highly satisfactory, though it is too much to hope that we made full and adequate analysis and use of our data in our first experiment. These so-called preliminary examinations turned out to be final examinations and invaluable for placement.

What was our procedure? Printed examination schedules and letters of explanation were forwarded to the Educational Records Bureau, together with lists of our candidates and the addresses of their schools or tutors. The Bureau then sent out the examinations, together with a schedule and letter, to each address. Upon completion of the examinations, they were returned for correction to the Bureau, which in turn forwarded a consolidated report to St. Paul's.

As our candidates normally enter the first four Forms, we gave to our own boys in the First, Second, and Third Forms—corresponding to the 7th, 8th, and 9th grades—the identical achievement tests which our candidates took for entrance to the Second, Third and Fourth Forms—corresponding to the 8th, 9th, and 10th grades. Thus we established control

groups of boys trained by St. Paul's. The dates of testing both groups were the same. By comparing the scores, independent school percentiles, and I.Q.'s of our candidates with the results of our own boys, in identically the same tests, we could arrive at an accurate appraisal of the comparative state of progress and degree of intelligence of our candidates. I say an accurate appraisal because the tests used were not thrown together in odd hours but were modern achievement and intelligence tests, scientifically prepared with proven validity, reliability, and comparability.

We had, of course, no group of boys of our own with which to compare candidates for entry into our First Form, a Form corresponding with the 7th grade. If, however, you will recollect that, in general, achievement tests are of the ladder type, you will see that it was a comparatively simple matter to compare our candidates for the First Form with those entering the Second both from within and without the School, as both groups took the same tests with the exception of Latin. Finally, the independent school percentiles showed clearly the candidate's relative standing.

To show results distinctly to the eye and thus enable the admissions officer to envisage the true quality of prospective candidates, it is essential to graph all data in various ways. Reduced to the graphic, results are far more meaningful than when in a chaos of figures, and the administrator, untrained in the interpretation of statistical data, is less likely to make faulty or unintelligent decisions. For instance, a graph shows overlapping vividly, and quartiles become intelligible divisions. A group of boys in the upper fourth quarter of one year of study may be shown to be equal in acquirements to those in the lowest fourth quarter of the next higher year, or, more significantly, equal to those at or above the median of the higher class, with resulting appropriate action to be taken. The spread, likewise, may be shown to be immense, thus necessitating sectioning according to achievement or ability, in full cognizance of individual differences.

May I offer a specific case? When in March the Third

Form took the Algebra achievement test, twenty-one boys were in the first or lowest quarter, which was found to correspond approximately with the highest quarter of the Second Form on the same test. Previously, at the mid-year examinations in February, six of these twenty-one had failed so badly that they had been put back into the Second Form (the changes in classification were disregarded for the purposes of the March achievement tests). Of the other fifteen, five had marks below sixty, and six others barely passed in the sixties. Had there been an accurate measurement of these boys by means of an Algebra achievement test previous to September, it would have shown that the lowest boys should have been put then into the Second Form, where they would have been cheered by their success rather than have been humiliated by their failure, and that the others in the group should have been put in a special section for specialized instructions. That this test was as accurate in its diagnosis at the other end of the scale may be seen from the fact that the four boys in the Third Form who ranked at the top of the group received 96, 95, 100, and 100 on the School final examination. Thus it is obvious that for sane and valid educational guidance the scientifically prepared achievement test is a necessity.

If you further plot the results of the entrance achievement tests in English, Latin, and Algebra in different colors on the same graph and then superimpose what your own boys in the same year of study have accomplished on the same examinations—using like colors for the same subjects but in dotted lines—the picture presented will probably bring forth some whistles of astonishment. To find the graphic lines of your own pupils far above those of your candidates may fill you with satisfaction over the quality of your own instruction, or a reversal may be the starting point of a much needed investigation into methods of instruction, content of courses, and methods of sectionalizing.

Again may I use the Algebra to present an opposite case from the first. A boy who had entered the Second Form a year ago was moved up to the Third Form after Christmas

on account of his brilliance. On the comparative graphs of the two Forms in the Algebra achievement test in March, this boy was at the top of the Second Form, his score being 35 points higher than that of any other boy in that Form and the fifth from the top of the Third Form. Had he taken an achievement test for entrance, he would have been put in the Third Form in September. How clear-sighted was Professor B. R. Buckingham in saying, "As well say a man does not fit his clothes as to say the child does not fit the school. The child is the standard to which all other things must be adjusted; and to the extent that this adjustment is imperfect, to that extent the school fails."

Our preliminary examinations are, I trust, but a prelude to a great expansion in the educational guidance of the individual. I have shown how the preliminary examinations may be of aid to school-masters in the entry as well as the placement of the boy, but only through a series of comparable tests over a period of years can we gather the material to render us real assistance in the educational guidance of the student. Professor Morrison has rightly said, "Teachers should spend half their time studying their pupils as growing individuals, and the rest of their time doing what that study indicates is desirable and necessary."

I plead for a reliable, valid, and comparable cumulative record of the whole boy through his elementary years so that on that record we may intelligently take him into the secondary school and give him what he needs and what he is capable of handling. The cumulative, six-year record card of the American Council on Education awaits our belated use.

TACT IN TESTING

ROBERT N. HILKERT

The Hill School

I MUST explain at the beginning that it is not my purpose to give a list of rules on "how to be tactful while testing." My purpose is to state a belief of mine, that successful

testing in a school requires that someone in the school be a tactician—of a sort.

Some time ago, I came upon a very interesting study that I want to tell you about. It appears that some professors of education wanted to know just how teachers and students felt toward the idea of taking examinations. So they made up a list of eighteen activities sometimes engaged in by teachers and students, and then asked a large number to rank them in the order of their pleasantness. It was found that the taking of an essay examination ranked sixteenth, exceeding in satisfaction only "weed-pulling" and "ditch-digging." But there was another part to the investigation. It was found that when the term "objective test" was substituted for "essay examination," there was an increase in favorableness of attitude. The taking of these tests rose to about the same position as that occupied by "washing dishes" and "cleaning one's room."

This is a simple story based upon a very serious study adorned with tables, correlation coefficients, and other statistical devices. Will you keep it in mind for just a few moments? I shall return to it.

This business of testing, as it appears to me, may be divided into four major parts: the construction of the tests, the administration of the tests, the scoring, and the interpretation of the test scores. I think we agree that the construction of tests is the business of experts. And the experts of the Cooperative Test Service have done a good job in giving us valid, reliable tests. Those of us who use the services of the E. R. B. must agree that the greatest efficiency in scoring has been attained. And the Bureau, through the establishment of norms, has made it possible for the test scores to be meaningful even to the inexpert. But what about the administrative phase, the giving and the taking of the tests? Part of my peculiar belief is that this is the weakest point in the sequence.

Let us grant, for the sake of argument, that our tests are valid ones, that they are perfectly scored, and that the norms have been accurately derived from the scores. How well have we measured students who look upon these tests as being about

comparable in satisfaction to washing dishes and cleaning one's room? How accurate are norms derived from scores made by students who have such attitudes?

My peculiar belief is that if we are to measure a student with any degree of accuracy, and if we are to have good norms, we have got to have our student *really interested in being measured*. If we wish to see how far up the mountain he can climb, he must want to make the climb. If he thinks the view from the bottom is just as good, he may not go very far. To be sure we may measure how far he has climbed, but we have not measured how far he is able to climb.

It may be argued that the tests do measure the actual performance of a given student at a given time. But I claim that we aren't particularly interested in measuring that. We are interested in measuring the *best* performance of the student at a given time. This is particularly true in measuring scholastic aptitude. It is important that the student see the value of the thing and that he make every effort to do his best. Failing that, we may be measuring something very accurately but we aren't measuring what we really want to measure.

Thus we have a very definite problem of the motivation of the student. Of course one can pursue the tactics of coercion. One can take the attitude that the student had better do his best—or else something drastic is likely to happen. Perhaps this is an acceptable way of looking at it. On the other hand, one can translate achievement test scores into school grades. That is always one way of inducing the student to do his best. But, of course, we can't do that with intelligence test scores. I think that there are other ways of securing a cooperative spirit on the part of the student. Sometimes it takes a considerable degree of skill—call it tact, if you will—but whatever it is that secures the cooperation of students in any area of activity must be used—because, after all, taking tests, even objective ones, isn't the student's idea of a really good time. At least that is what the study of the professors of education would tend to show. And it is my belief that successful test-

ing requires a favorable kind of attitude on the part of the student.

But my belief about this favorable attitude does not stop with the student. The impression I get from many of my friends in many different schools is that no one of these schools is without its faculty problem. In most cases now, it is not the difficult one it was some years ago. But there are die-hards. There are still those who react unfavorably to tests because they feel they do not measure "this" or "that" accurately. They so often forget that the test doesn't pretend to measure *all* things. There are still those who ridicule isolated test items which they feel even go so far as to violate good teaching practice. It is difficult for the statisticians to convince them that such items often have high measurement value for the very reason that no one would think of teaching them *per se*. There are still a few who turn crimson when the term "scientific measurement" is used. They feel that such indirect measurement can hardly be called that, forgetting that the instruments of physical science are instruments of indirect measurement. There are a hundred and one similar situations. And it is important that every member of a faculty display the cooperative spirit. And whoever is responsible for the school's testing movement, be it the headmaster or some other individual, knows that it sometimes takes the tact of a Talleyrand. There are other ways of handling faculty situations, but I feel that the method of reason and diplomacy is the best one.

The Cooperative Test Service can, and does, give us good tests. The Educational Records Bureau can, and does, furnish us the best kind of testing service. But successful testing in the school requires something more. It requires cooperation of the students and the faculty in the school. All the statistical devices in the world cannot make up for a lack of it. Each school has some such problem—varying only in degree. The problem is largely one of motivation and tact.

Informal Question and Answer Session

AN INFORMAL question and answer session was included in the Educational Conference for the first time this year. The purpose of this session was to create an opportunity for representatives of the schools and colleges attending the conference to discuss mutual problems relating to testing programs and the use of test results.

The session met at 7:30 on Thursday evening, October 31, with about fifty representatives from colleges, secondary schools, and elementary schools in attendance. Dr. Margaret Moore, Dr. John Flanagan, and Mr. Winston Stephens were present to answer questions concerning the work of the Co-operative Test Service and the Educational Records Bureau.

The discussion leader, Dr. Arthur E. Traxler of the University of Chicago High School, opened the meeting with a statement of purpose. He then called attention to a list of nine questions which had been selected from questions secured through correspondence with a considerable number of schools previous to the date of the session. He suggested that these questions, since they seemed to be common to a number of schools, be used as a point of departure in the discussion.

The first question in the list was: "What uses are made of the tests secured from the Educational Records Bureau?" So much interest was manifested in this question that a large share of the time of the meeting was spent in discussing it and questions that grew out of it.

A question was raised by a member of the group as to whether the main use of tests is to see where the particular students stand in reference to the total distribution. In the discussion of this question it was pointed out that the Co-operative tests, with the distributions of scores furnished by the Educational Records Bureau, are of great value to the small school where classes are not large enough for an adequate sampling of ability and achievement within the school. A fear was expressed, however, that if we give attention only to a pupil's

position within a distribution at one particular time, we will tend to hold up one standard for all pupils. It was held that growth, rather than status, is the important thing.

A need was stated for the devising of derived scores for each chronological age that would be of such a nature that growth between any two ages would be in comparable units to growth between any other two ages. Dr. Flanagan replied that that was one of the problems on which they were working.

The idea of comparing one's own school, as a group, with other schools was criticized by a member of the meeting, who called it a dangerous practice. Mr. Stephens, speaking on this question of comparison between groups, gave a number of illustrations in which schools had used comparison of their achievement with that of other schools to good advantage. He pointed out that it is essential, however, to start off with the measurement of ability or aptitude, if the comparisons of achievement are to be made intelligently.

There followed a discussion, in which several persons participated, of the use of an aptitude test in conjunction with the Cooperative tests in the evaluation of achievement. Dr. Buross of Rutgers University expressed surprise that the agreement of the meeting seemed to be that achievement could be appraised by comparing it to aptitude test results. He stated that a school may have different objectives from those of the test and indicated that a divergence of scores may reflect the difference between one school's course of study and those of other schools. He expressed an opinion that a pupil's percentile rank within a school is much more meaningful than his percentile rank among all independent-school pupils, because the children in a single school have been studying the same things and tend to have the same background. Dr. Buross favored an evaluation program in which the school would decide what its objectives were, select tests that would fit them, and then evaluate the progress of the pupils toward these goals.

Mr. Sagebeer of Tower Hill School spoke in agreement with Dr. Buross' position that tests should be selected and

used in relation to objectives. He criticized the practice followed by some schools of revising their courses merely so that they could do better on the tests they were using.

Discussion was then directed toward the question, "What use do you make of the test papers after the tests have been given and scored?" Miss Richards of Goucher College stated that this question of the use of test papers was of importance to colleges that were using the American Council Psychological Examination for admission and indicated further that colleges need to know what schools have given this test.

The central issue with respect to the use of test papers related to whether or not it was legitimate to use old test papers for teaching purposes. Mr. Armstrong of the Stony Brook School stated that as a matter of intellectual curiosity we ought to let the students see the tests. He felt that after a year any coaching effect of this practice would be lost. The discussion leader quoted from a memorandum by Dr. Wood on the use of test papers. The main point of this memorandum was that a moderate use of test papers for teaching, as distinguished from coaching, purposes is allowable, but that very little improvement is normally to be anticipated from one or two class periods utilized in this way. The tone of the memorandum did not encourage the use of test papers as teaching devices.

Mr. Britton of the Loomis School raised a question about frequent use of the Cooperative tests. He thought that if a school should use different forms of the Cooperative tests as often as every two months it would have an advantage because of similarity between the items in the various forms. Dr. Moore agreed that if the tests were given every two months the practice effect would be very noticeable. Dr. Flanagan stated that although the items in the different test forms were similar there was not precise duplication among them.

At this juncture, Dr. Moore, at the request of the discussion leader, outlined the procedure that is used in constructing the Cooperative tests. Several persons then directed questions

to Dr. Moore. Mr. McCall of the University of South Carolina asked how much differentiation a test item must show between the good group and the poor group in order to be retained in the test. Dr. Moore replied that in terms of percentages there must be about 15 to 20 per cent difference between the two groups.

Mr. Britton offered a criticism of the French vocabulary test, stating that he could not see that any word lists had been followed in constructing it. Dr. Flanagan replied that all the test words in the French test were taken from the Vanderbeke list, although not all the misleading words among the choices from which the pupil must choose are there. He pointed out some of the difficulties of a practical nature which the test-creator faces in preparing a number of comparable forms.

A question by Miss Ferris of Haverford Friends School brought the discussion back to the relationship between objectives and measurement. One member of the group expressed the opinion that the more your objectives differ from the usual, the more valuable the tests as showing you what other people are doing. Mr. Stephens pointed out that some classes are departing so widely from what has been usual that some of the elementary tests may be nearly useless, but that nearly all the tests have certain parts that almost any school would find valuable. He stated that the tests are not intended to be outlines of courses of study or objectives of teaching, but that they should be used to measure the specific things which they are created to measure. The limits and the use to which we can put the tests must be kept in mind.

Mr. Rowland of the Radnor High School stated that there is a value in getting even the negative form of results. If we have other things in mind we sacrifice some of the things measured by the tests. He pointed out that it is rather important in setting up new objectives to know just to what extent we fall short on more traditional things.

Mr. Sagebeer stated that in his school they are using a combination of the best objective tests that can be obtained

and the best home-made tests built on their curriculum. He pointed out that if a school makes its own curriculum in a more or less novel way it can't have standardized tests for all the experimental or partly experimental curriculum. The best it can do is to set down its curriculum and make tests which seem to be valid in the light of its own curriculum and then depend on some outside standard for what partial comparison it may give. The discussion leader asked if home-made tests may not tend to influence the curriculum in the same manner as standardized tests. Mr. Sagebeer replied that if we are making them to convince someone else they will have an influence, but if they are for our own use, the nature of our problem prevents any such influence.

Mr. Jager of Providence expressed a viewpoint distinctly favorable to the Cooperative tests. He referred to a phrase, "enduring knowledge," used by one of the speakers on the morning program, and defended the Cooperative tests as measures of enduring knowledge.

Mr. Sagebeer replied that the tests do test in a certain way for enduring knowledge, but that they are not a complete measure of enduring knowledge and that there may be other enduring knowledge not included in the tests, since the tests are not surveys, but samplings.

Mr. Jager then gave an illustration of the values attending the use of the Cooperative tests in maintaining a high level of achievement in the accepted objectives while at the same time achieving new objectives.

Mr. Britton stated that he was favorable to the Cooperative test program, but that he believed some good could come from discussing the fallacies of the tests.

Dr. Flanagan expressed an opinion that there had been a great deal of value in the extreme points of view mentioned in the session. He suggested that administrators who set up objectives that are widely at variance with accepted objectives have a duty to the children to be quite sure that there has been a gain in other fields to offset the loss in the field of the accepted objectives.

The discussion leader said, "There is not as much difference of opinion as appears on the surface. We are all agreed that the use of the Cooperative tests is a good thing. The question is rather, is it desirable to go beyond the objectives they measure and to try to set up measures for other objectives whether or not those measures are as reliable as the tests of the Educational Records Bureau. There will probably continue to be a difference of opinion as to how far we can go in the measurement by devices of our own of objectives we have set up."

The two hours that were allotted to this session having expired, the meeting was adjourned at this point. Many of those present stayed after adjournment to continue the discussion of various points in small informal groups. One of these small discussion groups asked Dr. Wood, Director of the Cooperative Test Service, to comment on the suitability of the Cooperative Tests for schools that were interested in the objectives of progressive education. A summary of Dr. Wood's comments follows:

There has been a good deal of confusion about comparable tests in relation to local school objectives. By their very nature, comparable tests are necessarily restricted primarily to certain common fundamentals which most, if not all, schools, regardless of their special emphases, include among their objectives in actual practice. The Cooperative tests are in the category of comparable tests, and they have the unique and indispensable values of comparable tests and also their limitations. They do not cover all the objectives of your school or of any other school. For that matter, no tests now available and no tests that may be available in the future can conceivably cover all desirable objectives. The tests and examinations prepared by your own teachers in your own school do not remotely cover all the objectives which you try to achieve. But like the Cooperative tests, they do cover some of your objectives. I think you should use the Cooperative tests for what they do measure, without holding it against them that they do not measure objectives which we have not yet learned to measure comparably, and which, in some instances at least, we have not even succeeded in defining in such

a way as to secure the agreement of all teachers in any one school, let alone teachers from all schools.

We cannot achieve the newer and vaguer objectives merely by ignoring and refusing to measure the achievement of our pupils in the older and more commonly accepted, and, as I believe, more basic objectives which are measured by comparable tests. Some of the discussions of tests in relation to newer objectives of instruction seem to proceed on the assumption that there is an inevitable conflict between the older objectives and the newer ones. Specifically, I have heard one school representative denounce the Cooperative English Test because, according to his statement, "his school was not interested in the things measured by the Cooperative English Test." His statement argued, by implication at least, that the admittedly higher objectives of creative writing in English could be better achieved by ignoring such things as usage, spelling, and vocabulary, than by including these objectives in the measurement program. My own feeling is that the opposite theory more nearly represents the truth. I think we still need to indicate to our pupils that good form in English is desirable, and that vocabulary is essential. Moreover, I believe that the correlation between achievement in usage and vocabulary on the one hand and creative writing on the other is significant, and that by systematically testing for these immediate and intermediate objectives in such a way as to reveal growth in these functions, we can more surely identify the pupils who are promising enough to warrant teaching for creative writing. Too much time is now wasted, and too many pupils subjected to unnecessary disappointment, by our blind efforts to force upon them higher objectives which are beyond their abilities and irrelevant to their interests and needs.

We should not give up the very great values and advantages of comparable tests because they do not measure all the objectives in which individual schools may be interested. We should continue to try to measure these special objectives by means of locally prepared tests, and we should above all try to define these special objectives so intelligently and so concretely that test experts may collaborate with us in formulating more adequate testing devices with which to measure them.

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NINETEENTH ANNUAL MEETING OF THE AMERICAN COUNCIL ON EDUCATION

May 1-2, 1936

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The Goal of Social Effort

LET the reader regard himself as a scientific trustee for the human species, who is making a rough bill of specifications which (1) will include the satisfactions possible for men today without imperiling the satisfactions of other men now or in the future, (2) will approximate to a reasonable harmony, or at least compromise, among conflicting wants, (3) would be approved by a substantial majority of the human beings of, say, the next thousand years, as a good program for 1940 if each were omniscient and chose wisely in his own self interest, and (4) would be approved still more strongly if each chose wisely in the interest of his friends, or neighbors, or countrymen, and their descendants.

As a scientific trustee he has considered all the facts relating to the nature and needs of man. He will try to avoid putting in his bill of specifications items so alien to the original germinal nature of man that they can be realized only at a tremendous cost of external coercion or seduction. He will attach great weight to items which promise to make the social order attractive and stimulating to the good rather than the bad in men, being aware that a world run in the interest of imbecility, greed, weakness, and the like will tend to become full of imbeciles, parasites, weaklings, and the like. In planning a scheme of satisfiable wants for good men in a good world, he will, however, dare to hope to have a social order in which undesirable tendencies in man's mental and moral inheritance are redirected or transformed or weakened by disuse. And he will be democratic in the sense that he will consider the wants of every person on their merits, and catholic in the sense that he will try to realize and appreciate the wants of all persons in all lands and of all creeds and cultures. The items which he selects are to be desirables in a good life for man, not for intellectuals, or for Puritans, or for Europeans alone.

If the reader will thus specify what he thinks are the

objectives of a scientific philanthropy and will collect similar specifications by a dozen other impartial students of human welfare, the net result will probably be much like the list found on this page, which represents the recommendations which the writer would make if he were responsible as trustee for human welfare. In some respects there might be considerable differences, and this makes it desirable that I explain and defend my bill of specifications of a good life for man.

DESIRABLE PROVISIONS TO BE MADE FOR MAN

1. Maintenance of the inner causes of the joy of living at or above their present average.
2. Food when hungry, and drink when thirsty.
3. A diet that is physiologically adequate.
4. Protection against pain-causing animals.
5. Protection against disease-causing organisms.
6. Protection or insurance against accidents and disasters, such as floods, earthquakes, wars, for which the person in question is not responsible.
7. Protection against extreme shocks, fear, and strains.
8. Some room or place where he can rest undisturbed, protected from the elements and from bad or uncongenial men.
9. Enjoyable bodily activity, especially when young.
10. Enjoyable mental activity, including esthetic pleasures.
11. Opportunity for human society.
12. Opportunity for courtship, love, and life with one's mate.
13. Opportunity to care for children and to be kind to human beings and animals.
14. The approval of one's community, or at least the absence of scorn or contempt.
15. The approval of one's self, self-respect, the absence of shame and remorse.
16. Opportunity to have friends and affection, if deserving of them.
17. Opportunity to be a friend and give affection.
- 18a. Opportunity to exercise power over some persons, animals, things, or ideas, making them do one's will.
- 18b. Opportunity to serve a worthy master.
19. Membership in organized groups, and the right to participate in activities or ceremonies which are (or at least are thought to be) important.
20. Opportunity to compete with one's peers winning in about 50 per cent of the trials.
21. Opportunity to compete with one's own past record, and, if deserving, to have the pleasures of achievement and success.

22. Occasional opportunities for adventure, risk, and danger.
23. Something to be angry at and attack.
24. Protection by society (via customs, laws, and government) in what is regarded by the existing moral code as a good life.
25. Freedom to discover and publish verifiable truth.
26. Enjoyment of the happiness of others.

EXPLANATION AND DEFENSE

I make no claim that my specifications of a good life are the best possible, or better than a hundred somewhat different ones which might be put forward. On the contrary, with the advancement of knowledge they should be much improved. They do, I hope, have the merits of being more impartial and more definite, of fitting human nature better, and of being more easily attained and maintained, than the general run of such recommendations.

It is obvious from the items that the intention is not to provide each and every person at each stage of his life with all the twenty-six items, much less to provide each person with an equal amount or intensity of each item. Any such identity of provision would be necessarily bad and unjust in view of the individual differences among men. Some persons at some ages will desire much bodily activity and little mental, much security and little adventure, much friendship and little power, etc., etc. It is both economical and just that each person should have a larger provision of certain items that satisfy him more than others would.

Item 1, the maintenance of the inner causes of the general tendency to enjoy life is of great importance, though the biological sciences must increase their knowledge of these causes before government, education, or philanthropy can act intelligently in the matter. To some persons in some conditions breathing, walking, the routines of productive labor, personal care, and social intercourse, and all save the distinctly unpleasant events of life are the stimuli to genuine happiness. If some baleful miracle reduced its level in the population by a substantial amount we should be a sorry collection of blasé, neurasthenic, puritanical, weepy grouchers,

with suicides an everyday occurrence. If science could give all as much as the most favored one per cent now have, shaving oneself, washing dishes, typing letters, tending machines, milking cows, and teaching school would be nearly or quite as much enjoyed as our recreations are now.

This tendency, which we may call Gen. Like, seems to be determined in part by the genes; the Negro races, for example, seem to have more of it than the north Europeans. It is deep-seated, being strong in youth, and weakening in old age. It is as yet rather mysterious, having extreme ups and downs in the same person, often without any obvious cause.

Items 2 to 8 inclusive require no comment, but I will note two points. Item 6 points to the fact that if present-day beliefs take from God the responsibility for floods, earthquakes, drouths, wars, pestilences, senility, and the like, our practices should not leave their sufferers to be requited in heaven, but should insure them on earth. Such insurance, especially against war, seems impracticable, but the matter deserves consideration. Items 3, 4, 5, and 7 require either a careful education and establishment of habits, or control of the environment plus considerable persuasion and coercion by public health officers.

A word may be added reminding the reader of the beneficence of such persuasion, coercion, and control. Man's gain from the extermination of yellow fever and malarial mosquitoes, from the addition of iodine to his salt and cod-liver oil or its equivalent to his diet, from preventative inoculations against smallpox and typhoid, from the inspection and treatment of water supplies, and from diphtheria antitoxin, probably far outweighs his gain from all the activities of his elected political representatives for the past twenty-five years.

Items 9 and 10 provide for the satisfaction of the tendencies to physical and mental play, vocalization, visual exploration, manipulation, mental control, "being a cause," and whatever leads man to want to run, jump, climb, hunt, fish, see, hear, taste, tinker, construct, sing, dance, read, think, write, etc., though no profit or praise is his as the outcome. The oppor-

tunities provided may be very simple and inexpensive, since such will satisfy men unless they have been spoiled by fond parents or commercial stimulation.

Items 9 and 10 might well be expanded to list some of the most important sorts of bodily activity, mental activity, and combinations of the two. Such a list would show that from the hunting, fishing, berrying and fruit-picking of primitive man to the walking and contriving of the surveyor, productive labor has often provided interesting bodily and mental exercise. It would show talking as a delight to many from Adam to the last elected congressman, and listening to stories and to music as almost universal passions from the most naive of savages to the radio's millions. It would show poetry, music, painting, and other fine arts created and diffused, and becoming for certain sensitive souls chief among the enrichments of life. It would show the same activity as work for some and play for others, a blessing and a bane. It would show a general craving to do something with one's muscles, sense organs, and brain, ranging from a minimum in some lethargic and dull creatures to a maximum in such as Theodore Roosevelt or Andrew Carnegie.

Item 11 is, and has always been, available to all save a few humans, without special care on anybody's part. So has item 12, except where the folly or selfishness or jealousy of the old and powerful, or the edicts of narrow conventions, or the stress of poverty, has prevented. The love life has not been so much prevented as burdened with restrictions, ceremonial observances, and confusion with mere erotic gratifications (as by auto-erotic practices or frequenting prostitutes).

Item 12 should perhaps be restated as: "Opportunity for courtship, love, and life with one's mate, or for some better arrangements for love between the sexes and the production and rearing of offspring when such have been discovered." But on the whole I prefer to leave it. The original item was not intended to cast slurs at polygamy, either simultaneous by custom or successive by death and divorce, nor

at various irregular erotic practices, which may well do much less harm than has been supposed. There seems no need, however, for philanthropic effort to be directed toward the impossible provision of more than one mate at a time for everybody, or toward the encouragement of irregular erotic practices. Modern psychiatry is strongly in favor of the more romantic and ideal forms of love between the sexes as the more healthy. The monopolization of many women by one man is one of the worst uses to which wealth has been put. Consequently, until man invents some better arrangement for a small social unit and for producing and rearing future generations than the monogamous family, it seems best to set a certain premium upon the courtship, love, and life with one's mate which has satisfied decent people fairly well for several thousand years.

Item 13 does not require any mystical bond between a mother and the children born from her womb, nor any sentimental exaggeration of the quantity or quality of the milk of human kindness, to justify its inclusion. Some good men and women would perhaps be healthier and happier in a world devoid of children and of any creatures needing relief, comfort and consolation. But most good women would not. Since there are to be children and creatures in need of kindness, it would be folly not to arrange that those who will be made happy by meeting these needs should have the chance to do so.

Items 14 and 15 are potent satisfiers whose nature, somewhat misunderstood by moralists and sociologists, I have described elsewhere (*Original Nature of Man*, Chapter 7). One's community is, of course, a variable, that of a bishop differing from that of a baker's helper, though overlapping to the extent that both would not like being scorned by casual bystanders. Item 15 means what it says, without idealization, and is very differently caused in different persons. It need not be logical, moral, or refined. A coarse and selfish moron may have it as well as a saint.

The satisfactions of domination and submission are de-

liberately bracketed as Item 18, to suggest that there need be no conflict between them, that each in its place and to a suitable stimulus is part of the good life for man.

Item 20 is inserted in recognition of the zest of rivalry and victory, and with the intention of purging the competition of schools, sports, and business from unhealthy conditions under which the great majority are doomed to depressing failure or demoralizing success. It may be noted that both parties in contests between peers may get an unearned increment of satisfaction since a person who wins in 50 per cent of the trials may well have in memory the sense of having won in 60 per cent or more.

Item 21 is a very beneficent form of satisfaction, and one which will be more and more easily provided as means of measuring achievement in schools, industries, and agriculture are improved and extended.

Item 23 will be objectionable to many pacific idealists who do not themselves desire it and think it needless or even harmful to others. They may be right; I hope they are, and I would not deny the possibility of keeping the human tendency to rage and attack bottled up from birth to death in most men and treated as an insane eccentricity when it did break forth. But on the whole, it probably is better to let men hate man-eating tigers, poisonous snakes, loathsome diseases, and their human counterparts.

Item 24 is a modest demand such as even the most conservative would make for law and order in accord with the morality of the times. It is defective in that it leaves the person who is in advance of his times unprotected in his eccentricities (except by Item 25), permits prophets to be stoned, and probably would not have saved Socrates or Jesus from execution. Item 25 alleviates it by permitting the verification of the truth of any statement, no matter how treasonable, subversive, or abhorrent to public opinion, to be its complete defense. Item 25 would have saved Galileo and will save many a reformer who limits himself to statements about the consequences of the proposed reform which can be

verified or disproved by prediction, observation, and experiment.

In the case of scientific and historical truth about observable facts there can be a higher and better criterion than the existing laws and customs. A court of science could and should decide such matters. What the government or the populace think about them is irrelevant to their truth. In the case of practical desirability, it is harder to tell the prudent act from the silly, the beneficent reformer from the crank. If a physician should now announce that he proposed to kill his patients when it was their desire and obviously to their advantage and to the advantage of the world as a whole that they should die, he would probably be an unselfish and intelligent man, since he would lose much in fees from prolonging their futile misery and since many intelligent physicians have thought such procedure reasonable. But he might be a crank. Even if he were good and intelligent, his act might be imprudent, a better course being to work for legal justification for certain euthanasias when approved by boards constituted by public authority, and for correlated changes in medical ethics and in public notions of the value of mere life as such.

Item 26 is deliberately limited to the positive side of good will, because I am doubtful of the value of being miserable at the misery of others.

CONCESSIONS TO HUMAN WEAKNESSES OR IRRATIONALITIES

Items 19, 20, 22, and 23 may seem unworthy to intellectualists, who may also demand that Item 8 should be restricted to what is beneficial to health, Item 14 to the approval of the good and wise, Items 9 and 10 to what is beneficial to intellect or morals, and Item 15 to the satisfaction of an enlightened conscience. Moralists, reformers, and philanthropists should not thus cater to childish, not to say vulgar, tastes, they may insist. They may be right to the extent that it may be our duty to work for a world fit to be the abode of none save thoroughly rational creatures, who do not require or desire celebrations, festivities, com-

petitive sports, or adventures. I do not think that is our duty, believing first that the desires for innocent ceremonial, rivalry, and adventure are intrinsically good, and, second, that it is risky to starve them. But even if it were our duty, we may well delay it; there are much sillier and more harmful wants to suppress during life and exterminate by breeding.

COST

Many of our items do not require great outlay of capital or labor. Life may be plain and simple and still provide them. All could be in a country devoid of golf courses, cemeteries, clothes other than one simple national costume, Pullman cars, and beauty-parlors, and even of automobiles, bath-tubs, electric lights, and radio sets, desirable though they are. Many luxuries satisfy only undesirable wants which have been created by the environment, often by commercialized forces, and which do no good that is not done much better by far simpler means. Enormous expenses are now incurred for Veblen's vicarious consumption and conspicuous waste, from envy and deceit, and to hide weakness and demerit. In many cases the better man's wants are, the less they cost. In many other cases sheer habituation decides whether the costly or the cheap satisfies.

Items 3 and 5 require allotments for research and preventive medicine and hygiene, but what is so spent may be saved as a consequence of the increased health and efficiency.

Item 8 does not demand a great expense for better housing, however desirable that may be. It would require the reduction of overcrowding, but many of the refinements which, as philanthropists, we would most heartily urge, we must, as psychologists, admit are not essential to human happiness. How beneficial they are to human health and morality is not known. Bad housing, misery, disease, and vice are associated, but the causal relations are not clear.

Item 9 involves a considerable expense in cities either to provide playgrounds nearby or to transport children to them. Item 10 involves a considerable expense for libraries in some

localities. Item 6 could probably be covered if what is now used up for military force could be used as a fund against earthquakes, drouths, and other mischiefs of nature. This would, of course, leave the country relatively defenseless against attack; and the advisability of this will be questioned. The general problem of the wants which are satisfied by military expenditures for defense and for aggression cannot be treated here. Except for war, the man-made disaster, the costs of security could be borne.

Items 14 to 23 and Item 26 require little or no expense for material equipment or services, being attainable, if at all, chiefly by changed ideas and attitudes of men in respect to themselves and their fellow-men, and other forms of social engineering.

Item 24 is provided for already in the courts and police and moral pressure from one's group.

Item 25 costs little and pays for itself millionfold.

CERTAIN CRITICISMS AND AMENDMENTS

Certain objections are sure to be made to the items listed. What about man's needs for religion? What about liberty, equality, and fraternity? What about social justice? What about peace on earth and good will toward men? What about democracy?

The worthy satisfactions of religion have not been rejected but included separately, because the term religion seemed too vague and multimeaning. Items 6, 7, 10 and 13 to 19 are supposed to specify the satisfactions to which religion (minus superstition and efforts to purchase favors from supernatural agencies) ministers.

Volumes have been written about liberty and the desirability of various forms and degrees of it, attainable and unattainable. For our purpose, it seems that liberty is valuable to men in so far as it means relief from needless pressure to do or suffer the disliked, and freedom to do what one likes. I should then answer that our list includes the best fruits of liberty and that such liberty as is helpful to secure these fruits

is all that we should require. Some coercion there must be. Parts of an individual are again and again coercing other parts of him; and until the breed of men is very radically changed, it will be for the common good that some individuals should coerce others. Coercion by nature is unavoidable, and coercion by the truth is highly beneficial. Liberty is not a panacea and should not be a fetish.

Most of the attainable blessings for which liberty has been the warcry during the last two centuries, liberty of religious belief and of conscience, liberty to think and learn, equality of opportunity to those equally deserving, careers open in accordance with merit, freedom from coercion by lies, and the like, are specified or assumed by our list of items.

There is a more special sort of liberty which many would include as desirable, namely liberty in the sense of self regulation and freedom of choice, such as an adult American bachelor artist possessed of strength and wealth has, and a child or a Russian or a married man or a soldier or an invalid or a beggar does not have. The former has freedom from tutelage, regimentation, family responsibility, commands of superiors, restrictions by weakness, and restrictions by poverty. He can, for example, stay up late if he likes, vote as he likes, eat what he likes, paint when he likes, and go where he likes without the restraints which limit the others.

Such a one seems to us to enjoy a sort of perennial vacation. There is to all of us who are oppressed by physiological, financial, moral, and other coercions a strong allurements in the hope of a life free from them. In our two weeks or four weeks of vacation, we sometimes realize it and the memories of such vacations arouse longing. Our heavens and Utopias are often glorified vacations. Benevolent reformers often aim to turn the world into a minimum of obedience, work, and responsibility with a maximum of self-expression, play, and entertainment.

This is all right in certain respects, but it is all wrong in others. It is right in that restrictions and coercions that deprive men of such conditions and opportunities as are speci-

fied in our list are bad. It is wrong in that it tends to disregard attainability and to regard superficial goods at the expense of more fundamental ones. Life cannot be a perennial vacation for all. Men should not be misled into making a fetish of enjoying only what they choose for themselves. If the meat someone orders for you is good, it is folly to poison it by the thought that you wanted fish. If the work on automobiles you are paid to do is interesting, it is folly to reduce its interest by lamenting that you want to work on airplanes or writing poetry and are doing it only for money. It is pathological to put a curse on any feature of life because it is not what you would have chosen.

If all these facts are kept in mind, there may be added to our list as Item 27, "liberty to each as much as he can use well."

As with liberty, so with fraternity, I advise our trustee to seek the desirable consequences rather than the thing itself. Item 26 is the chief among these. Items 16, 17, 18, 19, and 24, also, are real and potent values for men toward which fraternity may help. To be accepted as one of the brotherhood of men and to be the object of a general good will from all humans are valuable, but they will not take the place or do the work of actual close friends and kindly neighbors. To have a sense of kinship with all men and to feel well disposed toward them are solid virtues, and causes of noble pleasure, but it requires a high degree of abstract ability to attain them and keep them from becoming mere verbalisms or cheap sentimentalities. What is desired is a good will toward men which will operate vigorously in our thoughts about them and actions respecting them. This being understood, anyone who wishes may add to Item 26, enjoyment of the happiness of others, "good will toward men, and a sense of kinship with them."

Wars between nations and within nations are the great disasters which man creates for himself. To prevent them so far as possible and to insure the innocent from suffering their consequences with the guilty is one chief duty under

Item 6. Besides their recognized evils, wars have apparently been great intensifiers and distributors of disease-causing organisms. The satisfactions which they produce in the way of group activity, rivalry, adventure, and attack (Items 19, 20, 22, and 23) are producible far more cheaply and in healthier forms by other means. War is hell, and our trustee should get it outlawed as far and as fast as he can. If the statement of Item 6 does not clearly imply this it should be so changed to do so.

The desire for equality may refer to many and different desires, satisfiable by different states of affairs. We shall consider here the desire to have many or all men equal.

We may conceive states of the world in which all human beings, or all over a certain age, are equal in some one respect, or in two or more respects, or in all respects. Theorists have conceived many such. Communities have attained or approximated to such in the case of the right to vote, access to various religious privileges, protection by the courts, and other important matters.

The desire to have many or all men equal is the desire for such states of the world. It is a strong craving in certain humane souls sensitive to the injustices done to individuals and classes by nature and by their fellow men. Some of these egalitarians would impute their craving for equality to all fair-minded men, or all thinking men, or even to all men as a natural passion.

In this last they would surely be in error. There is no evidence that the genes of man give him either a desire for, or an enjoyment of, this sort of equality. The craving for an egalitarian society, is, on the contrary, a late product of extreme cultivation.

So far as original nature provides anything relevant to one's attitude toward differences in abilities, virtues, opportunities, achievements, happiness, esteem, etc., it provides a complicated and logically inconsistent set of tendencies to enjoy being superior, to pity certain sorts of wounded and distressed persons, to be kind to certain sorts of weakness and deficiency,

to admire, often with envy, those who are better off than we are in strength, beauty, popularity, and power; to exult at the downfall of others, especially the mighty, by which certain unconscious streams of our inner self-respect are fed, if the exultation can be kept from shocking our consciences.

The desire for an equalized world is derived not from any natural passion for equality as such, but, in superior persons, from pity, kindness, and certain intellectual processes, and, in inferior persons, from envy, self-esteem, the desire to be equal to somebody else, and the general tendency to accept any belief which is comforting.

Equality is a false and useless God for philanthropy. Benevolence and mercy are better. Justice is much better. Even if the world made equality its sole aim after subsistence was provided for, it often could not attain it by any methods short of a disastrous reduction of all to a level much below the present average, or by wholesale murder.

There is an enormous amount of variation in the natures of the fertilized ova which are the original nature of men. Some of these superiorities and inferiorities can be mitigated only slightly by any means within human control. The strong could be made weak by starvation and poisons, but many of the weak (e. g. some cardiac cases) could never be made much stronger. The beautiful could be mutilated, and some of the ugly and deformed could be much improved, but many of them could be improved little or not at all. The dull, the clumsy, and the unmusical could have their deficiencies somewhat compensated for by longer or more skillful education, but the alleviation could not bring many of them up to the average and could improve some of them only very slightly.

Equality, item by item, is a fantastic goal. Nor can we hope often to attain some average over-all equality as by compensating the blind by extra music or the dull by extra physical play. This is hard to do because the abilities and virtues of men are intercorrelated positively. As a consequence of this fact, we cannot equalize men in over-all ability, achievement, or esteem. It is easier to equalize in happiness.

We can give the imbecile food and toys and the gifted child food and higher education. We can give the blind, deaf, crippled, and weak certain extra advantages to make up the losses in happiness due to their condition. Some persons, however, such as those suffering from Moore's tears-suicide syndrome, simply cannot be made happy. Moreover, happiness cannot always wisely be equalized when that is possible. The brute who is happy when tormenting others should not be compensated for being deprived of this happiness.

The equalization of most forms of power (by health, strength, skill, knowledge, beauty, friendship, dependability) is unattainable, but the equalization of purchasing power by material wealth could be attained at least temporarily. Since material wealth is transferable, one can give all that he has of it to those who have less, though he cannot give them his courage or skill; and those who have political power can commandeer wealth for the poor or for the public or for themselves, redistributing it as they cannot redistribute health, intelligence, or happiness.

It is better to expend the time and energy in increasing goods than in equalizing them. This is obvious in the case of health, strength, skill, knowledge, peace, happiness, and other goods where an addition to any one person rarely involves decreases for others and often favors increase for them. It is almost certainly also true in the case of wealth.

The discomforts of dogs in the manger who will not enjoy a four-room house if neighbors have eight-room houses, or pork and beans because others have truffles, or an ordinary radio because somebody else has one trimmed with gold by which European stations can be heard, should be given little weight. If a person receives less wealth than he deserves, justice should provide such remedies as are possible, but if he receives less than some others, the matter is of very little importance. The test for any scheme of distribution of wealth is its consequences to the satisfaction of all good wants of all good men, not its consequences to the pleasures and pains of rivalry and petty pride.

It is easy to find imperfections in the present distribution of the world's wealth. An omnipotent and omniscient trustee for the world's welfare would doubtless change it radically. But only a maniac or an ignoramus would divide it equally. Lacking omniscience, we should experiment very carefully with the redistribution of wealth, concerning ourselves chiefly with increasing it, and in particular with increasing those forms of it which are not abstracted from nature's resources, but added thereto—knowledge, inventions, factories, machinery, homes, schools, books, music, and the like—material and spiritual capital.

Certain other sorts of equality such as equal rights to buy and possess what you can pay for, to select your rulers and judges, to marry one who is willing to be your mate, to learn what you are able to learn, are important, but need not be considered for our present purpose which is primarily to set a just value upon the desire for equality, pure and simple.

That value we have found to be low, much lower than that of the pity and kindness whence it is derived in superior men. It misleads good people into attempting the impossible, choosing the lesser good and sacrificing great social improvements for a mere slogan.

So it seems best for a trustee for human welfare to provide the good fruits of equality and protect against its mischief, spending no energy in equalizing for equality's sake. He should, on the contrary, take pains to provide the conditions and opportunities of our list to those who will use them for the common good rather than to distribute them equally. In particular, knowledge and power should be given in much larger measure to the able and good than to the dull and vicious. The power to purchase the services and products of others and the power to produce the next generation rank, in this connection, with physical and political power.

EDWARD L. THORNDIKE,
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The "Conference Method"

As Taught in the School of Public and International
Affairs at Princeton

THE notable report of the Commission of Inquiry on Public Service Personnel, based upon wide study and public and private testimony taken in all sections of the United States, confirms, on the one hand, the new manifestation of a desire to enter public service on the part of a great number of young people of the finest quality and promise. On the other hand, the report makes clear that no government, of whatever structure or theory, can endure without competent personnel and that at the present time we in the United States lack competent manpower to administer our programs and bring our plans (whatever they may be) to realization.

A grave and arresting situation. And in the field of business the need for a more adequately prepared personnel is hardly less urgent. Here it is apparent that technical knowledge and vocational aptitude no longer alone suffice. Business executives, bankers, lawyers have new and enhanced responsibilities; they must be equipped to carry on their affairs in the light of historical experience and with a clear understanding of the political and economic conditions which surround them. It is only when so equipped educationally that the individual in these fields of endeavor can expect for the future to succeed in any large way, and it is only under the leadership of such personnel that business can hope to remain measurably in control of its own destiny.

Princeton's early perception of the developing needs of government and business in respect of education, together with a determination to contribute to the satisfaction of those needs, led to the establishment of the School of Public and International Affairs in 1930.

As part of the training offered to undergraduates in preparation for citizenship and public life, this School of Public and

International Affairs has developed during the last five years a special course known as the Conference on Public Affairs. It is a course in method. It might also be described as a training laboratory of the social sciences. Selected cases are presented to the students. The students are required to deal with these cases in accordance with what we call the "conference method."

The conference method has been conceived with reference to a contemporary background briefly described, as follows, in the manual which is issued to the students in the course:

Life nowadays is characterized by a great multiplication of facts and an increasing complexity of economic and political organization. As a result, individual competence becomes more and more specialized. The problems of business and government do not, however, show the same tendency to narrow down into convenient, clearly defined fields. On the contrary, these problems involve a continually wider range of facts and considerations, disclose new interrelationships, and in the end demand for their proper solution broad knowledge and understanding. Individual action is increasingly replaced, therefore, by group action; and an ability to handle many facts and confer with others and arrive at friendly decisions, becomes an important requirement of individual success in almost any line of endeavor.

And at the same time, it might have been added, an attainment of the highest social significance.

THOROUGH PREPARATION AND A RIGHT APPROACH

We deem the ability to confer successfully to be compounded of two elements. These are thorough preparation, and then a right approach. Therefore, in the Conference on Public Affairs we endeavor to teach the 100 juniors and seniors who are enrolled in the School each year:

1. To gather facts not alone from books but also from people;
2. To reduce facts to concise report or argument;
3. To present the report or argument first in writing and then orally; and

4. To present it in such a way that not victory for one and defeat for another shall emerge from conference, but rather good feeling and agreement, or, at worst, a friendly definition of differences.

The first three lessons are taught to students in different ways in numerous university courses; but the training in these directions given in the Conference on Public Affairs is rather more specific than the student usually finds elsewhere. The fourth lesson is likely to be new. The first three make for thorough preparation. The fourth is a lesson in the "right approach."

THE KIND OF PROBLEMS STUDIED

The cases or problems studied in the Conference on Public Affairs are selected on account of their availability for study, their contemporary importance and their relation to some large field of inquiry or some basic issue of public policy. Those studied in 1934, for example, included: A revised charter for the City of New York; higher education for negroes in the United States; British policy regarding the conflict in Manchuria; the problem of Austria. Last year's problems were: Administrative reorganization of the State Government of New Jersey; old-age security; Federal policy respecting transportation; intervention by the United States in the Caribbean area; and the problem of Palestine.

As the basis of their study in each case the students are provided with a "problem sheet." Running from 10 to 25 mimeographed pages, a problem sheet contains a statement of the main outlines of the problem and a description of the exact procedure to be followed by the Conference in exploring it. Three to four hundred pages of assigned "basic reading" impart the elements of the problem. Beyond the basic reading individual students must pursue particular lines of inquiry. In this they receive bibliographical and general help from the teaching staff. They are specifically trained in the loose-leaf system of note-taking.

INQUIRY FROM PEOPLE AS WELL AS BOOKS

The students are required to gather facts and impressions not solely by reading and library research but also through personal contact with men who are directly concerned with the situation under investigation. The students themselves are encouraged to seek such contacts on and off the campus. Then in connection with each topic at least two persons having some direct, practical relation with the matter, persons holding opposed or differing views, are invited to Princeton to speak to the students informally and to confer with them in a free exchange of question and answer.

When the problem of a new charter for the City of New York was studied in 1934, arrangements were made so that students could attend sessions of the Board of Estimate and Apportionment in the New York City Hall. Later at Princeton they had the opportunity to hear and question the arguments for reform as presented by Mr. Paul Blanshard, then active in the Fusion campaign and subsequently Commissioner of Accounts in the LaGuardia administration. On the next evening the visiting speakers were Mr. Hilly, prominent member of Tammany, and Mr. Harvey, of the Republican organization. Mr. Hilly brought with him two New York City magistrates, and Mr. Harvey, his campaign manager. After two hours or more in the Conference room of speeches and discussion between the visitors and the students, the party adjourned to a Nassau Street restaurant and exchanges continued genially and profitably until after midnight. The students learned much about the practical problems of the government of the City of New York.

The manual issued to the students, which has been quoted from above, warns them that the speakers invited to address the Conference usually have some direct connection with the problem under discussion and may be prejudiced. When possible, speakers are chosen who will exemplify opposite or divergent opinions. Students may not, therefore, accept what the speakers say as being necessarily accurate or judicial. Students have the duty, and the opportunity, to develop the

critical faculty, weighing the statements of speakers against other available evidence.

Some of the School's friends thought that we were guilty perhaps of an error in boldness when we had Dr. Townsend speak to the Conference last year on old-age security and pensions, but I am confident that they would not have felt so could they have been present and heard the accurate and incisive, if always polite, manner in which the young men riddled with questions Dr. Townsend's messianic proposals. And when it came to the problem of Federal policy respecting transportation, the students had the privilege of listening on one evening to Mr. Joseph B. Eastman, Federal Coordinator of Transportation, and an opportunity to question and talk with him informally. On the following evening, Judge R. V. Fletcher, Vice-President and General Counsel of the Association of American Railroads, gave them another view of the situation.

TRAINING IN WRITTEN AND ORAL PRESENTATION

Each student prepares a written statement of the particular case which he is to present. Emphasis is placed upon clarity and forcefulness and the brevity which is usually the source of these virtues. The students are told of Madame de Sevigné's famous postscript: "Pardon this long letter. I did not have time to write a short one." The papers are reviewed and returned to the students, with constructive criticism, for further working over. The students are then coached in the oral delivery of statements based upon, but not textually identical with, their papers. In all this we have the very helpful cooperation of the English Department.

REAL CONDITIONS REPRODUCED

For the actual performance, which is the climax of this preparation and upon which they are graded academically, the students are organized in committees under the experienced chairmanship of interested friends of the School, and they are made to work under conditions which approximate those of actual political and business life. To this end the School early acquired a conference table, V-shaped, of ample dimensions, and covered with the conventional green baize,

about which the students and their chairman can sit as if they really were a committee of Congress or the board of directors of a bank or corporation.

The formal meetings take place on two evenings of one week. Seven or eight students and the visiting chairman compose the committee or board. Seven or eight other students are called up in turn as witnesses or experts to present facts and arguments and undergo cross-examination. When the problem under consideration was a revised charter for the City of New York, the committee was supposed to be a committee of the New York State Legislature. When higher education for negroes in the United States was studied, the committee was supposed to be a sub-committee of the Appropriations Committee of the House of Representatives having before it an appropriation for Howard University.

The hearing of witnesses consumes one evening. On the second evening the committee deliberates and lays down the lines of a report, or perhaps a majority and a minority report. The proceedings are watched by members of the Faculty, and each student is marked on his performance and subsequently told in what respects he has done well and in what ill and how his faults can be overcome. Some distinguished friend of the School acts as chairman of the committee, and the students have the advantage of two evenings' intimate association with a man of mature experience and special knowledge of the problem under discussion.

The discussion of each problem in the so-called formal sessions is organized so as to give the students who participate practice at different times in exposition, pleading and deliberation. Some experience is also had of cross-examination.

PRACTICE IN ORAL EXPOSITION AND PLEADING

The students who appear as witnesses have their chance at exposition and pleading. A "witness" is assigned to develop a particular area of fact (exposition), or a point of view (pleading). For example, in a study of compulsory unemployment insurance made in 1932, one witness appeared as "a neu-

tral observer of British conditions." It was his duty to present a clear, dispassionate account of British experience with unemployment insurance. The task was strictly one of exposition. This witness had, first, to acquaint himself with the main facts of the problem of compulsory unemployment insurance, then to study British experience, select the essential facts, organize these logically and state them without prejudice.

Another witness appeared as "a representative of a manufacturers' association opposed to compulsory unemployment insurance." His task was pleading; that is, to present a point of view. Like the other witness, he had first to acquaint himself with the main facts of the problem of compulsory unemployment reserves. Then he had to study the arguments of manufacturers opposed to such legislation, to organize these arguments logically, and to state them persuasively.

The manual explains to students that "between good exposition and good pleading there is not so much difference in method as might at first appear." "The important thing in each case," the explanation continues, "is to marshal facts. In exposition all the essential facts in a given area should be put forward as clearly as possible; in pleading, all the essential facts supporting one side of an argument should be put forward as persuasively as possible. In addition, the main arguments on the other side may be taken into account and either indirectly minimized or directly attacked. Merely emotional pleas, ill-supported by facts, are ineffectual before small deliberative bodies. The duty of an advocate is to make certain that his hearers are not left unaware of any important fact which may weigh in their deliberations in the direction of his advocacy. His art is to present the facts in such a way that his hearers come by an easy and obvious train of reasoning to the conclusion which he desires."

EMPHASIS UPON TIME LIMITATIONS

A witness is allowed eight minutes in which to make his prepared statement. Strict account is kept, and if he goes

beyond eight minutes he may be stopped by the chairman; in any case, his grade will be lowered.

The time limitation is established so as to keep the proceedings within practical bounds, but more particularly to accustom students to avoid prolixity and accommodate themselves to a restriction which they will find operative, either by definite stipulation or by force of circumstances, in all kinds of business, political and other intercourse. The students are told, for example, that the Court of Appeals of the State of Pennsylvania allows counsel 30 minutes for oral argument, however important the case. At the end of 30 minutes a bell rings, and counsel must stop, though he be in the middle of a sentence. Similar restrictions are maintained in other high courts. The time limitation operates also, the students are warned, even in the most informal interchanges. A salesman who enters a business man's office and consumes more than five minutes in his opening statement will almost certainly bore his "prospect" and lose his attention. To be brief, concise and deliberate in all written and oral presentation, even the most informal, is held out to the student as one of the most valuable lessons he can learn.

CROSS-EXAMINATION AS A MEANS OF QUIZZING

A witness is allowed to make his prepared statement, of not more than eight minutes, without interruption by the committee members. This is about the only respect in which the Conference departs from the conditions of real life. A witness before a Congressional committee (the students are told) is subject to interruption at any time and seldom has as much as eight minutes in which to develop his theme in his own way. Witnesses in the Conference are accorded immunity from interruption for this stated time in order that they may have a fair chance to show what they can do. At the end of eight minutes committee members are at liberty, under the control of the chairman, to question the witness on his statement. The aptness and accuracy of the witness's answers are taken into account by the judges in grading his performance,

and the acuteness of the questions of the committee members enters into the appraisal of their work.

Here is one of the most interesting pedagogical developments of the Conference. Students are quizzed, not by faculty members, but by each other, or by the visitor who is acting as chairman of the committee. And the students do not deal lightly with each other. I have heard a "witness" make a good opening statement and then, because his whole preparation lacked depth or breadth, break down under cross-examination by his student peers. A student feels a disclosure of weakness under such circumstances much more keenly than if it came at the hands of a teacher with the manifest intellectual advantages of specialization and maturity.

INTRODUCTION TO THE ART OF DELIBERATION

The students who participate in any given conference as "witnesses" learn something of oral exposition and pleading and how to stand up under cross-examination. Those who are committee members have an opportunity to take their first steps in the art of deliberation and so to imbibe the "spirit of conference." They have prepared for the Conference in accordance with the same routine as the witnesses. On the first evening of the formal sessions they listen to the witnesses and may exercise their skill in cross-examination. On the second evening (usually three days later) each committee member is given an opportunity to state his estimate of the problem and to suggest a solution. Discussion then follows, under the control of the chairman, with a view to general agreement, or, if this is impossible, at least a clarification of differences. The committee members are sometimes assigned to present particular points of view, in order to assure the complete exploration of the problem under discussion; but when possible each is allowed to come to his own conclusions after studying the problem and hearing the witnesses.

Emphasis is placed upon good manners. The manual advises that "members of the committee should be careful not to speak without first addressing the chairman and being

recognized by him. Remarks aside and interchanges between individuals which exclude the chairman and the other members of the committee are impolite and out of order. The general rules of parliamentary procedure govern the deliberations, but, the committee being small, the chairman may in his discretion permit some informality."

The discussions are confined to large issues. There is not time to reach points of detail. The effort is to decide upon principles or main lines of action. If a report or a resolution or a bill is under consideration, it is assumed that drafting experts will later put into precise language the decisions taken by the committee in general terms.

DELIBERATION OR "CONFERENCE" AS OPPOSED TO DEBATE

The students are instructed that the purpose of deliberation in conference is altogether practical. The aim is to clear up difficulties and to arrive at a friendly agreement, if this is possible, or in any case at a clear definition of honest differences. Stickling on procedure or unessential points is out of place, as well as any attempt by stubborn tactics to force the committee to a conclusion which does not really embody a meeting of minds.

"*Agreement* is the objective," the manual asserts. "The committee meetings are *not* intended to be debates or to provide training in forensics. The purpose is to provide practice in *deliberation*. Committee members should not try to overbear or humiliate one another. They should seek to persuade and adjust. They should look for points of agreement among their initial divergencies and attempt to build up from such points of agreement a reconciliation of views which will embody the best thought contributed by each. The judges will gauge the work of the committee members by these standards."

During five years it has been encouraging to observe that in the greater number of cases the students recognize and adopt the "spirit of conference." I recall a deadlock in committee over the issue of Federal policy toward transportation. After a while a student member reminded the committee

that the purpose was not to win a vocal victory for or against ultimate public ownership of railroads. The proper task of the committee was to discover any ground of agreement which might exist among its members regarding a practical policy for the present. The committee then went on with its work in a constructive spirit. Its members had read in the manual this admonition spoken by Chief Justice Hughes some years ago in a public address:

The test of our safety, the measure of our capacity for progress, is not in resources of mine or farm or forest, not in our skill in agriculture, industry or the arts, but in our temper, in the reasonableness which enables us to work together and to get results.

Be it noted that the procedure in which the students are trained is that of conference, not that of debate. The distinction is important. The spirit of debate is to win, by means of almost any device. The object of conference is to reach agreement. The students are taught that their work will be appraised not alone by the clarity and strength of their own presentation but also by the insight which they show in penetrating the thought of others, discovering points of agreement and common interest and constructing on that basis sound and viable compromise. The complexity and divided justice of almost all international and national issues are emphasized, together with the need for understanding, tolerance, balanced judgment, moderation in word and bearing.

The Conference on Public Affairs has proved to be a valuable medium for training students in intellectual method and the practical technique of conference. Beyond these particular benefits it has a larger value. Work in the Conference inculcates the spirit of conference. In a constantly more intricate and crowded world only the growth of the spirit of conference can in the end bring order and peace.

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The College in a Pecuniary Culture

THE American colleges and universities, which have become increasingly active trade rivals for tuitions and endowments, are really the victims of certain pervasive influences inevitably arising out of a new urban-industrial world order. With changing times and folkways, the central cultural institutions of religion, the older professions, and liberal education have been seized upon and altered by ideas and practices which are entirely foreign to their avowed ethical codes and traditions. Among the more obvious of these altered cultural tendencies, whose influences center about the university, are the following: An increasing public desire for competent professional¹ services, higher prices for these services, limited admittance to certain types of professional training in order to keep up the level of professional incomes or of professional standards, money-minded colleges and churches, and a considerable group of non-professional arts graduates, many of whom do not know just what to do after graduation. The ideal of service, on a non-pecuniary basis and without regard for personal advancement, has undoubtedly declined; and, as often remarked, the intelligent man who is willing to work for nothing has largely disappeared. In short, a pecuniary purpose has invaded and fused with modern culture in practically all of its social phases.

While the collegiate institutions as a group are not primarily responsible for all of this cultural upheaval and change, still their involvements are numerous and increasingly spectac-

¹ There is a general tendency to attempt to give a professional color and status to all important occupations, even including politics and business administration. This vague but active wish on the part of the public evidently reflects two ideas: (1) common recognition that responsibility in the modern world entails complicated operations requiring expert skill and specialized knowledge at a level not attained through haphazard and unsystematic experience, and (2) widespread hope of enlisting the services of a group of men with a "professional code of ethics" to safeguard society against the abuses of an unrestrained and predatory individualism.

ular. The reason is that they train the engineers, ministers, doctors, dentists, pharmacists, lawyers, teachers, research scientists, and miscellaneous experts of the age, the very groups which comprise the active leadership of whatever progressive and non-primitive culture there is. And as these various professions, by force of altered circumstances, seek to further the pecuniary ambitions of their individual members, the universities and colleges are led unavoidably and seriously to reflect that fact in most of the things they do.

I

Since the Civil War, life in the United States has been characterized by rapidly increasing specialization of work, increasing mechanization of industry including agriculture, and rapid urbanization both of industry and the population. Out of this whole movement "from farm to factory" the really fundamental result has not been so much the increasing interdependence of the people, as is commonly said, but the development of a practical everyday demand for ready cash. To any but the most expert of sociological and economic analysts, the interdependence of human beings is much more fanciful than real, something to talk about at club luncheons, but not a pressing reality in one's every waking thought and action. But there is nothing fanciful to the ordinary layman about the ruthless demands of the cash nexus. Every adult, even every adolescent, knows that he has to have cash,² whether he lives in the city or the country.

Without ready cash, the agrarian population cannot pay taxes, buy machinery and gasoline, or secure the clothing, professional services, housing, house furnishings, and the like, which growing intelligence and an urban-industrial culture demand. Cash in some form is the only means whereby the farmer and the villager can support exchange with an exciting world outside of his neighborhood. In times of economic

² By the term *cash* is meant not only (a) money in hand and (b) bank deposits, but also (c) credit. While this is not the meaning commonly associated with the term, the reason for its employment should be clear.

stress, to be sure, the countryside may resort to occasional barter and self-subsistence. But these are wholly inadequate and unsatisfactory devices, because they do not meet the fundamental needs and wants of the people. Furthermore, they are neither modern nor efficient, and when employed are always viewed as sore burdens and sullen makeshifts.

Urban residents without cash are in still more precarious and desperate circumstances, since for most of them there is no possibility of recourse on even a small scale to barter and self-subsistence. Food cannot be raised in apartments, and day labor cannot be bartered for subsistence in a depressed city. So money in hand is imperative. The trade unions all demand the maintenance of wage scales; and the trade associations likewise expect the purchase of the products of their members for the helpless. Nobody of position and influence is willing to see developed a system of special shops and stores where the stranded and moneyless classes may work for a direct living. Hence work often goes undone rather than at reduced wage rates, and unsalable merchandise is often destroyed rather than given away free of charge, since free supplies of goods would act further to depress the markets. Consequently the city dweller as well as the country dweller is simply forced to have cash or else to face want. He has no choice.

Under these circumstances, pecuniary considerations have come inevitably to dominate the cultural life of the people, with an enormously coercive force. Money has become the accepted measure of success in life, and is considered to be a more flexible and desirable equivalent of goods and services than is anything else, since it is such an obvious bulwark between happiness and misery or even life and death. To be cut off from the pecuniary system of exchange and cross payments means not only disgrace and loss of prestige, but also helplessness and destruction. Thus an exceedingly grave issue arises out of the impact of this inescapably pecuniary life upon the institutions of religion, the professions, the arts, and the sciences. Cash-need is a sober, modern counterpart of

the terrible hay-need of the Norse sagas, and the study of its mechanical and automatic influences on democratic culture throws real light on the plight of the college. At bottom, theirs is the problem of devising new philosophical aims and objectives that can operate through without merely reflecting the stern cash framework of national life.

While these pecuniary forces may be powerful disturbers in cultural affairs, why should cultural changes be attributed so largely to their influence? Have not technology and specialization in life and industry affected the cultural movement and outlook of the century quite as much as the individual's need for cash has? It is, of course, impossible to separate the three realms—the pecuniary, the technological, and the specialized. At present each implies and largely affects the others. Man is aware that he needs cash, for example, because of the uncharitable technology which produces better than its owners distribute; he needs cash, likewise, because he is in some degree a specialist and so unable directly to satisfy his own wants. But he develops his technology and builds up his specialization because these methods promise him a greater supply of cash to spend.

Perhaps at the dawn of modern history, when specialization began to increase and new machines were dreamed of, or at the beginning of each man's career—the lone individual was so deeply absorbed in specializing his skill and mechanizing his work that he rarely thought of the possible pecuniary implications of his actions. But, even at these initial stages, the rôle of the pecuniary is already apparent, sometimes as cause and sometimes as result.

In general, group or social customs of this nature are probably the complex result of the actions of many individuals. At the same time various relationships among groups and subgroups of individuals seem to exert a large influence on the individual in any attempted erratic contravention of or deviation from the general direction and tendencies of others. This is not to attribute any magical force to group influence, but merely to recognize that the prevailing customs of the

members of a given group may develop slowly over a long period of time so that they establish themselves innocently enough before anyone realizes their full implications at some stage, well off in the future. But once established even in their initial stages, the rising customs may assail only a few individuals each year and so resist all individual efforts at protesting or countermanding their spread. Eventually, society groans under a system, which no one ever planned or wanted, and the presence of which few suspect. As Gibbon says, for example, Rome declined so slowly that no one generation saw very much change or realized what was happening.

To say that men have changed their ethical or religious ideas and practices not because of pecuniary influences but merely because they are free thinkers and infidels is, of course, circular logic. The real question is why are they such *indifferent* or *free* thinkers on so many of the older cultural themes? And why do their practice and theory often diverge? Though no simple explanation would seem possible for the altered face of society, still it is evident that cultural changes since even the Renaissance have been accompanied by the growing importance and complexity of pecuniary concerns. And to gather together all the attitudes of mind, all the emotions and impulses, and all the other implications, which would seem to follow from extension and strengthening of the pecuniary system, is largely to describe the cultural tendencies of the present age. Surely, therefore, it is not unreasonable to attribute the cultural changes, in which the colleges are so deeply involved, mainly to the invasion of the older cultural domains by pecuniary forces that have resulted in and also have resulted from individual necessity and the "money economy" of large groups.

II

Today a college degree or certificate is a legal prerequisite for many and various careers. The pharmacy schools have just adopted a four-year course to precede the state boards. Even C.P.A. examinations in various states will no longer

be given to candidates who are not graduates of a special college course. In all this the social-minded educator sees desirably higher standards, but the outsider sees also a growing number of restricted groups struggling to acquire a sort of guild monopoly which is by no means socially desirable. Even the aging teacher, no matter how well educated or proficient or experienced a teacher he may be, is likely to find himself sent up to a university for certain special summer courses if he wants to hold his job. To him it often appears to be a graft and a racket, in which he contributes so much money to the upkeep of the place and helps to swell its courses. Since the work is required, however, all take it; and few universities would feel it necessary to fail more than a small percentage of the group.

Here is a curiously apt parallel with the position of the landed interests of the variously envied religious bodies of Europe towards the end of the middle ages. For those bodies, at that time, possession of land had become the great promotional object, because land was the basic economic and social reality. Therefore a large fraction of the landed estates gradually came into the hands of the religious orders, prior to the Reformation. But today the ownership of land has receded in practical economic importance, relative to the amount of economic activity in which the people of the western nations are engaged. In its place the possession of intangible legal rights and privileges—including licenses to practice and certificates of proficiency—have become the more important and profitable things to own. That these rights, moreover, are coming to represent quasi-monopolies and enviable privileges cannot be doubted. To the extent that the numbers admitted to their possession are now or in the future may be limited—by numerical, pecuniary, or chronological (“clock hours”) *minima* and *quotas*, informally arrived at—the universities have merely assumed another non-educational function, namely, that of restricting entrance to the professions. As a result they will eventually have to demonstrate that they still constitute non-profit enterprises serving the benevolent

purposes they were intended for originally. When the English monasteries, for example, became vast landowners with mighty representatives in the House of Lords, they found themselves outside the purely religious domain of labor and prayer as contemplated by Benedict several centuries earlier when he wrote his rule. In a similar way the American collegiate bodies are pressing outside the educational domains contemplated by their founders and the grantors of their charters.

To be sure, the required degrees, licenses to practice, and valid certificates employed in the age of the universities have largely displaced the enormous body of deeds, titles, and grants once employed in "the ages of faith." Of course, endowments are also received, though in the aggregate all college and university endowments and property apparently constitute considerably less than 2 per cent of the national wealth. But the economic factors of professional restriction and privilege are large and operate effectively and in more subtle ways; and the desire for cash revenues is stronger and more widespread now than it was when Henry VIII had his men melt the lead roofs off the English abbeys.

It would be utterly absurd to compare the relative political safety of the American colleges of today with the imminent political danger in which the English abbeys and monasteries stood just before their dissolution. That, of course, is not our purpose. But the plain fact is that the colleges now hold the key to a vast body of rights over intangibles whose potential national importance and possible abuses are roughly comparable.

These coveted rights, furthermore, are mere legalities, and have all been made by the state, which originally granted outright or by indirection all collegiate charters, and which at any time might wish to revoke^s or alter them. By the single act

^s Probably the courts would not allow the legislature to revoke charters without very grave cause or even specific constitutional amendment. But in the absence of such amendment various equally unfavorable steps are doubtless legally possible.

of a few score men at the state's capitol, many of these elaborate pecuniary distinctions and credentials could be altered, circumvented, or whisked out of existence. Doubtless this will not happen immediately, and perhaps it will happen at no time if the forces of culture maintain sufficiently skillful lobbies. Yet the colleges, as we have seen, are the holders of an immense body of rapidly growing though popularly unrecognized "vested rights"—schools of social work, public administration, business administration, library science, and education, to name only a few of the newest. Usually their chronological development has passed through these stages: (1) unskilled labor stage, (2) apprenticeship stage, (3) stage of required general education, (4) stage of specialized collegiate courses offered, (5) stage of development of detailed "professional" curricula, and (6) finally the stage of sanction by law of these routine curricula as a rigidly prescribed condition of employment in the field. It is all very necessary to secure progressively for the public the most competent personnel for the professions so as to insure the highest possible standards of professional service, the guise under which new, required *minima* are always promulgated. The trouble is that the implications of the system do not stop at that point in an aggressive society, moved by the pecuniary spirit and torn by group conflict and jealousy of legalized privileges. The numbers validated for practice, moreover, will tend to be further restricted, somewhat regardless of sheer achievement and ability.

More and more, therefore, the collegiate bodies are likely to be made painfully aware of the invasions of their older, established cultural order by pecuniary forces. More than one notable institution now fears taxation of its properties. In numerous states the various collegiate factions already carry on a varying strife through attempts to influence the legislature and the board of regents, the private colleges against the state institutions, and the smaller state institutions against the big state university, which in turn "accredits" them all. Back of this rivalry is the new economic order, a far more

complicated and slippery reality than the "banker capitalism" described by Dr. John R. Commons.

If at any time it can be shown that this system of educational restrictions, which unquestionably threatens to grow, has been used for the pecuniary advantage of the favored members of the professions rather than to supply an abundance of inexpensive service of a high order, the educational system may expect trouble.

To charge, as so many moralists still do, that the mad pursuits of the money-profit order, the hurrying national quest for cash, are merely a question of low public morals, loose ethical standards, and bad taste, is a mistaken analysis. The majority of the people do not seek after money because they are wicked, but because money is, as already explained, so highly prized. And it is so highly prized, as we have seen, because it is a kind of universal solvent in which all material values may be held suspended—even health, morale, the respect of friends and family, and bare subsistence itself. Hence it is not a matter of ethics but of necessity which drives and goads contemporary humanity to scheme and strain for the wherewithal and means of payment. And this is the reason why the colleges have not escaped contamination by the pecuniary culture.

The earnest pastor who rises in his pulpit on Sunday morning and denounces the worldliness of his congregation and his nation in its money-grasping dollar dealing is often himself at that very moment engaged in the self-same pursuit. He wants a full and respectful congregation, new members, and a vital church. If he gets these, he will obtain an increase in salary, better living quarters, greater security, and perhaps a call to a larger parish. Suppose the man merely engages in the simple non-spectacular cure of souls, visits the sick of his parish, preaches the meek, unearthly gospel to the weary and the poor, and is just a kindly, simple pastor. He is likely to be located for life in some poor homely parish where such an officer of the Lord can call without embarrassment and find the family "in." For such a man to educate his sons at

college is not an impossible, but it is a difficult, task. For him to supply a well-rounded diet for his own family and the necessary hospitable charity for others, while at the same time dressing and playing the part which his priestly offices in the modern quasi-tribal social organization still require, all this is extremely difficult for a really poor man. Somehow he himself must draw in the cash revenues, for his oratory and the figure he cuts are the main appeals of the institution. And, as he well knows, without funds the enterprise will sink.

Now all this is not to disparage the work of the ministry. The priest certainly tries to comfort men in the great crises and sorrows of life. Often he represents the strongest forces of a non-pecuniary culture in his community. The fact merely is that he and his church cannot escape the merciless demand for cash, that they must and do plan their program in terms of cash, that the profit motive gradually invades and colors all they do so that organized religion becomes a process of means and ends under a price system. Almost inevitably the aggressive promotional spirit gradually enters, and good showmanship for receipts at the altar secures the venture. In living and dying, obviously, fiscal transactions are often opposed to the exercise of love, resignation, peace of mind, and the repose of the bereaved heart. Yet, to the widow and the orphan and the aged who are left financially stranded, the need for money payments frequently presents a tragedy so bitter that it outlasts and over-balances bereavement itself.

It only remains to recall to mind the fact that many of the colleges and universities of the United States originated either admittedly as denominational colleges or as colleges closely related to organized religious bodies. While today this historic relationship may be half forgotten by the colleges, its significance is everywhere felt. And to the extent that the aberrant forces of a cash civilization have destroyed their former religious bents and purposes, the colleges have lost a guiding point of view in ethics and educational philosophy. If they cannot return to this former position, they must replace it with something having the tentative working force of a new

decalogue. Not to recognize this fact is to drift aimlessly with the unsettled times, moving further and further into an indefensible position, which no sane man ever expected to occupy or intended to try to justify on rational grounds of social service and democratic ideals.

And this is why money is sought after even by the church until the public comes to consider money as the measure of success in life and its possession an earthly blessing. To the conscientious, the importance of its possession often seems as a moral edict. Therefore, very slowly, but with penetrating thoroughness, money consciousness has invaded and altered religion. Though the Lord himself was a poor man, the production of sacred books and symbols to further His religion becomes a profitable enterprise. And it is not by accident or local laxity that the best church singers are commonly paid, and rich edifices maintained, although the lowly live lives of want. Nor is it by accident that prominent laymen support the institution, since its fame and good repute lend them influence, confer prestige, and bring them favorable publicity. To affirm these obvious facts is not to characterize a noble institution adversely, but only to face the realities of a type of all-pervasive influence whose subtle force has largely changed the aspect of religious practices.

No less marked, of course, has been the pecuniary influence on the other professional groups. Legal, educational, medical, and dental services are more or less falling into the hands of guild-like monopolies which have to exact a money price for whatever is done. The rugged old country doctor who once drove about the countryside, caring for all who needed his services, lingers on in the generous doctor who "writes off" hundreds of dollars annually in bad debts. But the old community doctor was a figure in a slower moving age and period of history. If the doctor of today writes off too many bad debts, he becomes a "back number" who cannot keep up with an enormously difficult and rapidly expanding science. Time and science may ruthlessly pass him by, and eventually his

own patients will neither trust his advice nor take his medicines.

In the same way, no successful corporation lawyer can afford to carry many cases to the industrial commission and collect \$300 for his client for a small fee of \$5 or \$50. He would really "lose money" on a fee of \$250, if the case were an involved one. In the eyes of the law, as learned by school-boys, all contending parties are equal; and if the defendant is too poor to hire his own attorney, the court will appoint one to defend him. But to our maturer minds this equality seems so fictional that we should much prefer being in a position to pay a high retainer and so to secure the best talent. It is not, thus abstractly considered, a question of pride but of personal security. And yet pride enters also.

At present the impecuniously minded are a doomed race, with decreasing opportunity and influence in college or culture. Once in a simpler age it was possible to be blessed, though very poor in worldly goods; but today the very poor lack money, and hence proper diet, well-fitting clothes, the wherewithal to pay college tuitions, and the prestige to build up power and influence. As the amount of required college work increases, they will rarely become doctors, lawyers, dentists, college professors, or ministers of the gospel. Granting that they have potentially able minds, we must recognize that they are financially and so legally estopped. "College" becomes the bar to their progress.

In this new order which has grown up around us, then, the prestige of college and university is large, simply because going to college offers the principal routes by which all the less wealthy and less powerful may rise. No common man doubts that college opens the door to advancement; whatever it confers must, by growing assent, be obtained before he will be admitted into any of the restricted and therefore more lucrative orders of adult service. So a college course comes to embody the new initiatory rites, displacing or at least modifying the old system of apprenticeship, by which the young qualify themselves for adult citizenship under the new names

of science and education. Naturally a college career thus comes also to involve, beyond the mere formal training of mind and body, an elaborate code of non-essentials which are nevertheless the real prime requisites of success—habitual satisfaction of innumerable small conventionalities of speech and thought, contacts with others who will “rise above the ranks,” social maturity, and in short better all-round appearance and social and economic or even expert acceptability at graduation.

The essentially non-college man often lacks comprehension of the cryptic jokes and the sophisticated iniquity and make-belief of his generation. He does not qualify socially with the same ease that old fraternity brothers do, and without this invisible stamp of certification, somebody is likely even to whisper that college work was too hard for him and that he dropped out by force of necessity to save his face. For this reason, proud families occasionally insist that their sons graduate because there is otherwise too much explaining to do.

During the entire life process of the individual, the pecuniary ways and means of getting and using so-called education are usually discernible. It is not love of learning or the mere satisfaction of intellectual wonder, but rather the very sober veneration of the law and the layman for tangible credentials that enables the contemporary colleges to attract the large numbers they do. Perhaps the preference for youthful college men as army officers, during the War, contributed to this popular veneration, yet it is no mere post-war fad and was operative long before the War when every ambitious though uneducated parent hoped to have his able sons graduate from farm and factory into management or the professions. It is really democratic idealism and self-respect in action, a national characteristic often belittled by aristocratic critics as the disgusting American struggle “to get ahead.” At one time a college education was not necessary for one to rise from farm boy to lawyer. Today it is a necessary step. And so college is no longer a place which attracts only the scholarly and the curious.

Everybody who counts in the least among the younger generation has had a high school education; even possession of a college degree "means less⁴ than it used to." For this reason, larger numbers are pressing farther along for the higher graduate degrees. But the period of training, as it is thus lengthened, becomes burdensome, greatly delaying marriage and the social maturity of the non-self-supporting student. This being the case, the more *progressive* colleges are now reducing the undergraduate period from four to three years or less, for the abler student. It is not that human knowledge has been simplified or that the college curriculum has been "reabstracted," or that the general intelligence of the student has increased. It is only that the time required to outdistance the multitude and reach the higher planes of distinction has grown longer because the multitude is now completing the four-year course in larger numbers. As a remedy, the multitude might be denied admission, but their money is needed too badly for that excepting in extreme cases. The barriers are simply made more flexible, though perhaps not easier, displacing the absolute time requirements and providing genuine academic distinctions and a more dramatic, because more variable, goal in life.

Accompanying this new strategy which rewards and accommodates the intellectually independent or fleet-footed, incidentally, there is a new financial danger to the universities and colleges. It is that the increasing numbers who spend reduced time in attendance will pay proportionately reduced fees.

III

Since the Civil War, with widening financial inequalities, it has become increasingly evident that the older democratic and liberal ideals, involving the supposed economic, social, political, and educational theories of the nation, are in danger of

⁴ In another sense it means more, since it is now a general prerequisite. The point is, however, that whereas the term "college graduate" was once itself a mark of social distinction because of its rarity, today it is more common and is rather a requirement to be satisfied before entering upon an adult career.

becoming mere historical relics which have often been ignored in practice. Against them the unthinking folkways and ancient organizational patterns of group life, which are neither democratic nor liberal, have always held their ground to a very large extent. Today many students and leaders unquestionably believe that, even as ideals, these theories were false, that the cause of the perfectibility of the common people is a lost cause. The idea of social progress for the masses still holds, but it is a disillusioned concept of progress, which might better be described as slow change towards slightly better physical standards of health and consumption, without reference to any extraneous idealism involving freedom, equality, spiritual zest, and human brotherhood.

In the minds of a great many administrative heads even in education, the motive of personal advancement is uppermost during both their student and their adult careers; and advancement of self has come to mean just two things: sufficient power or influence to control others and sufficient cash revenues to make good a rising and outwardly respected position. For this modern type of climber the rôle of the spectacular and the solidification of dignified guild conventionalities in the professions, supply the means and the ends of achievement. Unfortunately the new world needs educational leadership of another sort—that is, leadership with effective eccentric objectives and a reliable sense of direction in uncharted realms.

The question of what to do with power and influence after they are acquired is seldom seriously raised by a college education. And the reason is that the process of getting, holding, discharging, and enjoying the duties of an influential post is repulsive to, and leaves no time and energy for, the slow, speculative study of human destiny and the nobler ends of life. The conquest of the world, in short, has become an individual rivalry, an undertaking for the immediate benefit of favored individuals and privileged groups. And to these ends higher education has widely devoted itself. To say that too few leaders have a reliable sense of direction in this broader social sense—in terms of all social groups and their habits, of the

rising culture, of the great "market areas," of the cultural development of old and new professions, and of an altered social and economic structure—is merely to say that these considerations have not seemed practical in an individualistic world of conquest where cash realities have forced themselves upon everybody, not excluding the small, wealthy minority.

For the universities the immediate, short-run problem is not one of escaping from this pecuniary world, because that is impossible, but of studying and mastering its ways. Thus in the long run they may learn how to use its forces in the service of the non-pecuniary aims and purposes which modern knowledge and democratic ideals require. By some method or other the professions must obtain recruits of the highest ability, regardless of individual wealth or influence. Nobody can pretend that this is at present satisfactorily accomplished. Likewise enough trained members must be produced for each profession to supply all the services needed by society, regardless of the selfish desire of anybody to limit new recruits either to present or to arbitrarily determined numbers. Undoubtedly this principle requires a far closer quantitative study of present and future human needs in every single community than has ever been attempted. New outlets, moreover, in the form of new practicing professions which the limited knowledge of the past would not support, must be industriously discovered and developed if the world is to enjoy the results of whatever advance is made in science.

At the same time educated persons must be more thoroughly humanized and must be fused into the social order more completely than they have been up to the present. For this group to live aloof, self-satisfied lives somewhat endangers their continuing existence, and certainly impoverishes the social life of the general population. To be sure, this process of fusing will require long generations of most painstaking adult and lay education. It really necessitates the development of a new liberal college with a point of view that can enrich and enlarge the student's understanding of his own life and surroundings so successfully that he would

consider its teachings a blessing even though he were forced to live inconspicuously and in relative poverty all his days. Today the "educated" student who cannot "get ahead" generally considers his education a worthless mockery. This is an unmistakable symptom of an ill-designed and ill-adapted "liberal arts" curriculum which does not do its job sympathetically and thoroughly.

To us the word "culture" has two essential implications, one referring to the conventionally accepted ideas and modes of *action* in religious, ethical, educational, political, economic, social, and related affairs, and the other referring to an exalted body of abstract *ideals* which do concern the conduct of these affairs but which are not carried out by the masses of people. It happens accordingly that the real cultural drift of a given people is usually in contrast with that which many of its thoughtful critics think it should be.

Since the days of Jeremiah, the activity of prophet and educator has been centered on the problem of altering⁵ rather than the problem of understanding the basis for the cultural tendencies about them. With the beginning of the present century, consequently, an inner weakness of the colleges has arisen out of the same old failure of educational leaders to devote sufficient analytical study to the real world about them so as to understand why the cultural tendencies are what they are. For this reason the conventional realities of the new pecuniary culture, arising as they do out of economic necessity, have obtained and are likely to maintain the upper hand in university administration. The way out is shrewd financing for valid and comprehensive educational ends. But this, in

⁵ But is not this a defect in the purpose of the present discussion also? Decidedly not. Here the purpose is to point out why certain bewildering changes have arisen in contemporary life and how impossible it is to revoke them. To hope to save or reform the universities by moralizing to them is, as previously stated, to deny the operation of these underlying causal forces on which moralizing seems to have little effect. Thus progressive administration must lie ideally in the more critical evaluating and equating of ways and means by all agencies simultaneously, and always with attention to possible social alternatives and consequences arising out of progressive action before any steps are taken.

turn, requires that somebody must constantly state and revise those ends in relation to the altered cultural possibilities and realities of a rapidly changing age.

In the meantime, the colleges have taken on several side-lines and by-product industries—athletics, parks and memorials, professional restrictions, honors to the prominent, and even the administration of trust funds. Hence they continue in their unwillingness to recognize and act upon the central fact that they are in most respects business enterprises engaged in the production and sale of several services of varying importance. The central educational product is not a side-line and should not be confused with either the ill-advised enthusiasms or the anachronistic cultural effusions of the mentally befogged. It is educational service, consisting of independent research and unbiased teaching, that the colleges render. And they need to reduce their money prices through lowered costs and greater general endowments. Forced to operate at the focal point in a complicated pecuniary culture, which requires professors and administrators to work for a cash return, the colleges still think of themselves as institutions somehow set apart as they were in former days when the national economy was simpler and an ascetic and mystical religion and the divinity school were their central concerns. Thus they still feel entitled as boards of trustees to exemptions not only from taxes, but also from all the more critical administrative methods of sound business—exactng study of their market areas, of their customers' needs, of the diversity and quality of their product (which is service), and of their operating costs. By thus ignoring their involvements with a pecuniary world culture they not only sharpen its effects but they also become helpless victims in its grasp.

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The Nature of Student Personnel Work

I. INTRODUCTION

THIS article represents an effort to clarify the nature of student personnel work. During the past forty years, and more particularly during the past two decades, a new group of educational officers have made their appearance upon American college campuses. Generally referred to as student personnel workers, they include among their numbers deans of men, deans of women, deans of freshmen, directors of admission, social directors, directors of student health services, student counselors, vocational counselors, psychological clinicians, directors of placement bureaus, directors of dormitories, and a variety of others.

These personnel workers have been appointed to perform a wide range of activities which have come to be regarded as educationally significant and indeed indispensable. Devoting their attention to the student as an individual rather than as a mind merely, they enhance and supplement the formal instructional programs of the college. They are interested in his emotional and social development, in his health, in his selection of courses as they relate to his personal objectives, in his place of residence, in his extra-curricular activities, in his financial needs, and in any number of other considerations which bear upon his education broadly considered.

The literature of student personnel services and their administration has been abundant in recent years. Most of what has been written, however, has been segmental rather than comprehensive. Few attempts have been made to view these services in the broad, to see the work of one personnel officer in relation to the work of his fellows, or to appraise the concepts common to them all. An essential unity underlies all the many types of personnel service fostered in the colleges, but this unity has seldom been stressed. Very properly personnel officers as individuals and as specialized groups have been ab-

sorbed in pioneering efforts to cultivate their own sectors of the terrain. They have had little leisure to discuss common objectives and common problems.

The pioneering days of the student personnel movement are rapidly passing, however, and the time seems to be ripe for a systematic discussion of what personnel people do, what they stand for, and how their activities fit into the educational programs of colleges and universities. In this article the writer seeks to do two things: first, to point out the inadequacy of several widely used definitions of personnel work; and second, to indicate and develop another which is implicit in the publications of several writers in the field and in recent developments at a number of universities.

II. THE PREVAILING CONFUSION

Speaking before a meeting of personnel¹ officers at Purdue University in October, 1929, President L. B. Hopkins of Wabash College expressed concern because "the word 'personnel' means one thing to some people and another thing to others" and particularly because "so many of our associates on the faculties of colleges and universities have no real understanding of what we are thinking or trying to do in . . . personnel work."²

If Mr. Hopkins were still writing and speaking about student personnel problems, he would more than likely express even greater concern today. The confusion and lack of understanding in 1936 are considerably greater than in 1929. The terms *personnel work*, *personnel administration*, *personnel services*, *personnel research*, and *personnel point of view* continue to be bandied about so variously and carelessly that faculty members cannot possibly be expected to know what

¹Every time the word *personnel* is used in this discussion the qualifying word *student* is understood. It is perhaps unnecessary to observe that educational institutions have personnel problems relating to faculty members and to employees which are important but different from student personnel problems.

²Hopkins, L. B., "Personnel Procedures in Education," *College Personnel Procedures*, Proceedings of Purdue-Wabash Conf. of College Personnel Officers, October, 1929. Bulletin No. 21 of Eng. Extension Dept. at Purdue, p. 48.

personnel workers are about. Indeed, plenty of evidence exists to suggest that personnel people do not themselves know. At least, few personnel workers agree among themselves; and until they do, faculties and administrators will continue to be perplexed and apathetic if not unfriendly and even antagonistic.

Two years after Mr. Hopkins' Purdue address a committee of the American College Personnel Association, headed by Robert C. Clothier, who was soon to become the president of Rutgers University, called attention to the "urgent need for . . . definition." In their report they said in part:

Even the term "personnel work" is interpreted in different ways. To some of us it is broad in its meaning, involving all those aspects of college work which affect the student as an individual. To others it denotes certain specific functions. The former concept is unsatisfactory to some persons because, in its general nature, it seems to lack specific meaning; the latter is equally unsatisfactory to others because it seems incomplete.³

The Clothier committee set about defining the personnel field in an attempt to end the confusion to which they and Hopkins referred. That their discussions were unsatisfactory to some personnel people at least is demonstrated by the plea of A. B. Crawford, written several months after the appearance of the Clothier report.

Referring to personnel work as a "murky subject," Crawford suggested "that college personnel officers more broadly establish their position, purposes, and procedure" and "that as a body they prepare a statement of . . . the total scope and purpose of personnel work." He wrote in part as follows:

College personnel work has necessarily developed rapidly but unevenly. Pressure for immediate action has led to make-

³ "College Personnel Principles and Functions." *The Personnel Journal*, Vol. X (June, 1931), p. 10. President Clothier's name is used because he served as chairman of the committee of the American College Personnel Association which made the report submitted in this article. The other members of the committee were Earl W. Anderson, Mabelle B. Blake, Grace Manson, and N. M. McKnight.

shift procedures, with resulting confusion and loss of perspective. . . . In this comparatively new field great advances have already been made, but rather by the process of scurrying forward from one immediate objective to the next than in pursuit of comprehensive or far-sighted ends. The time therefore seems to have come for an estimate of the situation as a whole, for comparative study of its component parts and for trying to visualize their interrelations more clearly.⁴

Despite the Clothier and Crawford attempts at clarification, no generally accepted interpretation of the nature of personnel work has yet been stated. Instead the appearance of new books and articles have served to compound the confusion rather than to eliminate it. Bad as this may be for personnel people in their relationships with one another, much worse is its effect upon their programs. As Mr. Hopkins has pointed out, few faculty members and administrators understand what personnel workers are trying to do. Yet the need of such understanding cannot be too urgently stressed. If personnel services are to contribute to higher education as effectively as they properly should, the personnel point of view must pervade the thinking and influence the activities of all members of college and university staffs. This will never happen, however, until personnel people arrive at an understanding among themselves as to what they are trying to accomplish. To achieve such a common understanding requires a definition of the field which is logical, lucid, and generally acceptable.

III. CLARITY OF DEFINITION THE BASIS OF UNDERSTANDING

In his book *How We Think*⁵ John Dewey has devoted considerable space to an appraisal of the nature of understanding. He points out that "to understand is to grasp meanings"⁶ and that "the process of arriving at . . . units of meaning (and of stating them when reached) is definition."⁷ In brief,

⁴ Crawford, A. B., "Educational Personnel Work," *The Personnel Journal*, Vol. X, No. 6 (April, 1932), pp. 405-6.

⁵ Revised edition, D. C. Heath and Company, 1933.

⁶ *Ibid.*, p. 137.

⁷ *Ibid.*, p. 160.

understanding follows from clarity of definition. If, therefore, personnel people are to understand one another and in turn be understood by their faculty and administrative associates, they must obviously give careful thought to defining their field of endeavor.

To date a good definition is no simple matter. Without going into an involved discussion of types of definitions and their characteristics it may be pointed out that a definition is "a declaration of intention to use a word or phrase as a substitute for another word or phrase."⁸ For example, in Euclidean geometry it would be cumbersome to use the phrase "lines that do not intersect in a plane" every time such lines are encountered. The shorter expression "parallel lines" has therefore been substituted; and whenever one wants to say "lines that do not intersect in a plane," he can say instead "parallel lines."

Anyone can, of course, manufacture as many definitions as he pleases. It is perfectly possible, for example, for an individual to define a chair as a thingamabob. He can go through life so designating every chair he encounters. No one can logically prove that a chair is not a thingamabob. The most that anyone can do is to indicate that such a definition has no utility, that people do not understand what he means. The only test of a definition, the logicians agree, is its utility, and utility is determined by practice. If people readily and regularly substitute one term for another, then the definition thus stated can be said to be useful.

To summarize: a definition is a substitution of a word or a phrase for another word or phrase, and that definition is useful which is generally acceptable. This statement may now be applied to several current definitions of personnel work.

IV. DEFINITIONS THAT ARE TOO INCLUSIVE

The Hopkins-Clothier Definition: Perhaps the most widely accepted definition of personnel work is that which avers that personnel work and education are synonymous. This defini-

⁸ Eaton, Ralph M., *General Logic*. New York: Chas. Scribner's Sons, 1931, p. 295.

tion has been stated by L. B. Hopkins and by the committee of the American College Personnel Association of which R. C. Clothier was chairman and to which reference has already been made.⁹ As the most frequently quoted definition of the field, it should properly be appraised first.

In 1926, after a careful inspection of personnel practices in fourteen colleges and universities, Hopkins defined personnel work as "work having to do specifically with the individual."¹⁰ He then observed that "one might question how this differs from the concept of education itself. I don't assume that it does differ." Clothier in 1931 presented a similar formulation in these words: personnel work is "the systematic bringing to bear on the individual student of all those influences, of whatever nature, which will stimulate him and assist him through his own efforts, to develop in body, mind, and character to the limit of his individual capacity for growth, and help him to apply his powers of developing more effectively to the world."¹¹ In 1935 he repeated this definition substantially and wrote that "very largely we might define education itself in such terms. If so, personnel work and education are the same thing—which, broadly speaking, is perfectly true."¹²

To say that "personnel work and education are the same thing" is just another way of saying that personnel work is education and that education is personnel work. On the face of it, this is not a useful definition of the personnel field. As indicated, a definition has utility only when one term of the statement can be substituted for the other term with general agreement among interested individuals. But can the term *personnel work* be consistently substituted for the term *education*? Obviously not. Learning the scientific method is admittedly education, but who is there who would say that learning the

⁹ *Op. cit.*

¹⁰ Hopkins, L. B., "Personnel Procedure In Education," Supplement to *The Educational Record*. No. 3, American Council on Education, Washington, D. C. (October, 1926), p. 50.

¹¹ *Op. cit.*

¹² Clothier, R. C., in the Foreword to *Individualizing Education*, by J. E. Walters. New York: John Wiley & Sons, Inc., 1935, pp. vii.

scientific method is personnel work? Similarly learning the principles of economics is education, but it certainly is not personnel work. Hence, although the Hopkins-Clothier statement (the two are so much alike that they can be considered as one) constitutes a definition, it has no utility as a definition of the personnel field.

The Scott Definition: A second unacceptable definition is that of Walter Dill Scott which reads: "Personnel work is the systematic consideration of the individual, for the sake of the individual, and by specialists in that field."¹³ If anything, this is even more inclusive than the definitions of Clothier and Hopkins. They label all education personnel work, but Scott outdoes them. He brings into the personnel fold dozens of varieties of experts from the pediatrician who directs the individual's weaning during his first months to the attorney who draws up his will upon his death bed. All these specialists patently consider the individual systematically "for the sake of the individual," but they would be surprised to discover that they are personnel workers. And, of course, they are not. To define personnel work so broadly is to render the term meaningless.

Personnel Work Is the Individualization of Education: Faced with this critique President Scott would very likely suggest that his words have been taken too literally and that his definition is not meant to be so broad as it reads. In all probability he would point out that what he really means by personnel work is the individualization of education. Hopkins¹⁴ and Clothier¹⁵ would more than likely make similar statements. All have generally been so interpreted. Walters, for example, has just published a book on personnel work and has

¹³ Scott, Walter D., In the Foreword to *Student Personnel Work at Northwestern University* by Esther McD. Lloyd-Jones, Ph.D. New York: Harper & Brothers, 1929, p. v.

¹⁴ Hopkins, L. B., *The Educational Record*, American Council on Education. Vol. 7, No. 3 (July, 1926), p. 174.

¹⁵ Clothier, Robert C., "College Personnel Principles and Functions." *The Personnel Journal*, Vol. X, No. 1 (June, 1931), p. 17.

called it *Individualizing Education*.¹⁶ Strang in her book, *The Role of the Teacher in Personnel Work*¹⁷ recognizes that the terms *personnel work* and the *individualizing of education* are frequently used interchangeably. Caliver¹⁸ and numerous others have implied that they are one and the same concept. To these writers personnel work is the individualizing or personalizing of the educational process.

But this third definition is also too-inclusive and therefore undesirable. If every device to individualize education is personnel work, then most of the techniques to improve instruction developed during recent years must be so designated. These include the Harvard system of tutors, the preceptorial conferences at Princeton, the honors courses at Swarthmore and a hundred other institutions, the project and unit plans adopted by a number of academic departments in several colleges, the innumerable programs established the country over for gifted students, the grouping of classes according to ability, and such total programs as that of Bennington and Sarah Lawrence which stress individual instruction through the whole curriculum. Merely to list these curricular and instructional methods of personalizing education is enough to demonstrate they are beyond the scope of personnel work. According to the definition under discussion the Harvard, Princeton, Swarthmore, Bennington, and many other faculties, whether they know it or not, are personnel workers. Personnel work is individualizing education, therefore perforce, anyone who individualizes education is a personnel worker.

The flaw in such a concept is the same as that in the first definition discussed. A definition to be acceptable must delimit the field being defined. If it cannot be delimited, then nothing distinctive exists to define. Ergo, if there is nothing distinctive about personnel work, the term should be abandoned.

¹⁶ *Op. cit.*

¹⁷ Strang, Ruth, *The Role of the Teacher in Personnel Work*. New York: Teachers College, Columbia University, 1935, p. 11, pp. 14-15.

¹⁸ Caliver, Ambrose, *A Personnel Study of Negro College Students*. Columbia Contributions to Education, Teachers College Series.

To abandon the concept is, of course, out of the question. It has an important place in education and must be protected from some of its friends who seem to want to smother it with generosity. Unfortunately the impression has grown that personnel workers want to encompass all education. The result has been that frequently they have met with antagonism and more frequently with deadlier indifference. Such faculty attitudes have been inevitable, and because of them personnel programs have in general marked time or actually lost ground.

This unhappy situation is not likely to change for the better until personnel people agree among themselves upon boundaries within which to operate. It cannot be reiterated too often that exact thinking requires exact limiting expression. The natural sciences, and the professions which have grown from them, have advanced so much more rapidly than the social sciences, and the professions dependent upon them, chiefly because of the exactness of their concepts. Social scientists—personnel workers among them—must strive for a similar precision.¹⁹

V. DEFINITIONS THAT ARE TOO RESTRICTIVE

Side by side with these all-inclusive definitions may be placed a number of too-restrictive definitions most of which are implicit in the literature rather than clearly stated. One must look for them in such passages as the following from a recent article by Cowdery:

A psychiatrist on the staff of a large eastern university—himself carrying on high-grade personnel work—was recently asked in conversation what is his relation to the Personnel Director of his institution. His reply was that there is no occasion for relations to or with the "personnel organization and its director." Pressed for an explanation of this reply, the psychiatrist pointed out that with them the personnel office

¹⁹ A pertinent discussion of this point with particular reference to education may be found in R. O. Billett's volume, *Provision for Individual Differences, Marking, and Promotion*, U.S. Dept. of Interior, Office of Education, Bulletin, 1932, No. 17, Monog. No. 3, pp. 234-36.

carries on one primary activity—placement in jobs and follow-up of graduates.²⁰

The psychiatrist referred to in this report obviously considers personnel work to be placement and graduate follow-up—nothing more. A number of other people similarly define the personnel field. For example, a bulletin appeared in 1931 entitled "Twenty-five Years of Personnel and Placement Work at the Carnegie Institute of Technology." Its thirty-one pages are devoted entirely to the placement activities of the Carnegie Bureau of Recommendations; and although in the introduction a word is said about vocational and educational guidance, one is given the impression that essentially personnel work at Carnegie means only placement.²¹ The same definition is in vogue at a number of other institutions.

A second narrow interpretation confines the scope of personnel activities to personnel research. This definition goes back to the years immediately following the war when the word *personnel* came into educational terminology for the first time. In those early days personnel work meant personnel research almost exclusively. Yoakum, for example, while still an army psychologist, proposed a plan, in the spring of 1919, for a college personnel bureau. He wrote:

The primary functions of the bureau are to obtain accurate data on each student, to codify the requirements of different professions; to supervise the use of tests and to provide means whereby each student may become acquainted with his abilities and the requirements of the occupations in which he is interested. . . . The bureau will proceed on the assumption that all of these problems can be investigated in a scientific manner and will initiate and encourage research in this field.²²

The Yoakum bureau was, obviously, essentially a research organization confining itself largely to vocational problems.

²⁰ Cowdery, Karl M., "The Guidance of Youth in the College." *Occupations*, Vol. 12 (Dec., 1933), p. 14.

²¹ This impression is borne out by the editorial campaign during 1934-35 of the student newspaper, *The Carnegie Tartan*, for the establishment of what the editors called a student personnel advisory service.

²² Yoakum, C. S. (Major, Sanitary Corps, U.S.A.). *School and Society*, Vol. IX, No. 228 (May 10, 1919), p. 559.

A number of personnel departments were established after the Yoakum pattern or after others much like it. Some of these still continue to operate within the confines of their original commissions; others have extended their investigations to other types of student problems; and still others have added counseling and other activities to their research work.

To many people, however, personnel work is still considered to be nothing more than personnel research. In 1927 Howard R. Taylor of the University of Oregon wrote that "the task of a university personnel organization is . . . a threefold one." He proposed that these tasks are:

(a) To evaluate the information already available concerning each student so that the collection and recording of non-essential or inaccurate information may be dispensed with.

(b) To develop additional and better measures of such factors as are needed to give a fairly complete picture of each student as he differs from others. In this way he can be understood and advised wisely and accurately.

(c) To coordinate and translate these data so that they can be readily interpreted and widely used.²³

Four years later Professor Lorin A. Thompson, Jr., of Ohio Wesleyan University, speaking before the National Association of Deans and Advisers of Men, similarly restricted personnel work to research. He said in part:

The personnel officer in any college, whether large or small, as I conceive it, should be a man who is technically trained in methods of research and methods of handling and dealing with all forms of collected data. His chief purpose should be that of studying the policies of the institution, collecting information and data, preparing reports and advising both faculty and administration concerning policies dealing with all phases of student life. In a very strict sense he should be an expert whose chief interest is in personnel research, rather than in the field of individual guidance.²⁴

²³ Taylor, Howard R. *School and Society*, Vol. XXVI, No. 673 (Nov. 19, 1927), p. 654.

²⁴ Thompson, Lorin A., Jr., "Relationship of the Dean of Men to the Personnel Officer in the Small College." *Secretarial Notes for the 13th Annual Conf. of the Nat'l Assn. of Deans and Advisers of Men*. April, 1931, p. 39.

Without making a national canvass it is impossible to determine how many personnel people accept this limited notion of personnel work. Their numbers are very likely small, but that even a few define the personnel field in this narrow fashion is a fact to be reckoned with.

A third point of view restricts personnel work to counseling. Boucher, for example, devotes a chapter of his book *The Chicago College Plan*²⁵ to "Student Guidance and Personnel Work." In this chapter he discusses nothing but student counseling: Freshman Week counseling, educational counseling after Freshman Week, and vocational counseling. As this chapter stands the reader must conclude that Boucher confines guidance and personnel work (he does not indicate if and how these two terms are different) to counseling in the three areas which he has discussed.

Jones considers personnel work in much the same light. He writes that "many colleges have organized personnel departments for the special purpose of assisting the individual student in his adjustment and in preventing failures. . . . Personnel directors arrange personal conferences with students who are in trouble of any kind, assist in improving study habits, and give very useful help of all kinds."²⁶ This is a broader statement than Boucher's, but it still confines personnel work to counseling. It is broader only in that Jones includes more types of counseling, i.e., "trouble of any kind" and "help of all kinds."

Several other narrow definitions might be cited, but the limitations of these three examples apply to all similar definitions. What, briefly, is wrong with statements of this sort? For some people it is sufficient to observe categorically that they are too restrictive. Others, however, will require demonstration that they actually are too restrictive.

The logical error involved in these narrow definitions is the

²⁵ Boucher, Chauncey Samuel, Ph.D., *The Chicago College Plan*. Chicago: The Univ. of Chicago Press, 1935, p. 151.

²⁶ Jones, Arthur J., *Principles of Guidance*. New York: McGraw-Hill Book Co., Inc., 1930, p. 270.

fallacy of illicit simple conversion.²⁷ One cannot argue that because all Ohioans are Americans that all Americans are Ohioans. If anyone (taking the first of those three narrow statements) defines personnel work as placement, he implies that it is false to say that some personnel work is not placement. This affirmatively stated means that all personnel work is placement. Perhaps a few individuals will make such an affirmation, but certainly no more than a few. Most personnel people will shy away from using *personnel work* and *placement* synonymously.

One may reasonably say that some personnel work is placement since the converse of such a statement reads that placement is a part of personnel work. Similarly one may acceptably observe that research is a part of personnel work and that counseling is a part of personnel work. It is fallacious, however, to say either that research is personnel work or that counseling is personnel work. To make such statements involves confusing the part with the whole.

VI. "GUIDANCE" AND "PERSONNEL WORK" NOT SYNONYMOUS TERMS

Frequently the word *guidance* is used synonymously with the phrase *personnel work*. Strang writes, for example, in the opening pages of her book *The Role of the Teacher in Personnel Work*²⁸ that "in this book *guidance* and *personnel work* will be used interchangeably;" Doermann in his book, *The Orientation of College Freshmen*,²⁹ footnotes *personnel service* with the observation that he uses the term "as designating the guidance organization;" and McConn³⁰ typifies a large number of people who use such expressions as "the personnel or

²⁷ Eaton, *opus cit.*, p. 201.

²⁸ Strang, *op. cit.*

²⁹ Doermann, Henry J., *The Orientation of College Freshmen*. Baltimore: Williams & Wilkins Co., 1926, p. 113.

³⁰ "Fifty-seven Varieties of Guidance." *Bulletin of the American Association of Collegiate Registrars*, Vol. 3, No. 4 (April, 1928), p. 359.

guidance movement" indicating that they consider guidance and personnel work to be the same thing.

Exactly what these authors mean by guidance it is difficult to discover. They seem not to be aware that the guidance people on the lower educational levels (who coined the word in its technical sense) are divided into three camps which define *guidance* dissimilarly. Brewer of Harvard and Kitson of Columbia, as the most vocal representatives of two of these groups, have been wrangling in the journals for several years. Koos and Kefauver represent the third position which stands somewhere between those of Kitson and Brewer. If college personnel people are to use the word, they ought properly to indicate in which sense they employ it. Their positions cannot otherwise be intelligently understood.

Consider first the Brewer definition. By guidance Brewer means a complete philosophy of education. He writes that "a true education . . . means guidance"³¹ and that guidance is "the heart of education."³² His "general statement of whole process of guidance" includes the following agencies or media :

1. An organized, rich life of normal, interesting, and important *activities*, making up the juvenile community.
2. *Classes* and study groups for the discussion of the problems involved in these activities, for such information and technical knowledge as may be needed to develop an appropriate skill in them, and for the wise motivation and integration of all the activities of life.
3. *Counseling* in these activities, with fostering and friendly supervision, to develop wisdom in specific activities and to develop skill in planning, balancing, and integrating them.³³

Brewer takes the position that these guidance media "should gradually supplant most of the present subjects of instruc-

³¹ Brewer, John M., *Education is Guidance*. New York: The Macmillan Co., 1932, pp. 2-3.

³² *Ibid.*, p. 23.

³³ *Op. cit.*, p. III. Brewer includes a fourth factor in this general statement, but this is not reproduced here because it concerns the administration of guidance and is therefore not germane to this discussion of definitions.

tion"⁸⁴ to the end that guidance be recognized as the "chief function of school and college."⁸⁵ Succinctly expressed Brewer proposes that education and guidance are exactly the same thing—or ideally should be.

Such a conception of guidance is sufficient demonstration that personnel work and guidance (as Brewer defines it) are not synonymous. Brewer has defined guidance in exactly the same way that Hopkins and Clothier have defined personnel work, but their statements have been proved too inclusive. It follows, therefore, that Brewer's interpretation is also too broad to make guidance an acceptable definition of personnel work. Brewer, incidentally, recognizes the difference between the two terms and never uses them synonymously.⁸⁶

Kitson's interpretation of the scope of guidance is as narrow as Brewer's is broad. In taking Brewer to task for his all-inclusive use of the word he writes that "the term 'guidance' appears to be about to swallow up all education and all types of life activity."⁸⁷ He therefore "proposes that the term 'general guidance' be abandoned—that the word 'guidance' be reserved to designate only vocational guidance, its point of origin."⁸⁸

It should be made clear that Kitson does not take the position that the activities which Brewer and others lump under the term *guidance* are undesirable. On the contrary he believes them of great importance, but he objects to labeling them *guidance*. Kitson's position, briefly stated, is this: the word *guidance* is such a catch-all that it should be abandoned except when associated with the word *vocational* in the term *vocational guidance*. It is not within the scope of this article to discuss the merits of Kitson's proposal. All that is important here is to demonstrate that the term *guidance* (i.e., voca-

⁸⁴ *Op. cit.*, p. vii.

⁸⁵ *Op. cit.*, p. 112.

⁸⁶ *Op. cit.*, p. 23.

⁸⁷ Kitson, Harry D., "Getting Rid of a Piece of Educational Rubbish." *Teachers College Record*, Vol. xxxvi, No. 1 (October, 1934), p. 30.

⁸⁸ *Ibid.*, p. 33.

tional guidance), as he uses it, has no utility as a definition of personnel work. Certainly few will agree that personnel work includes only vocational guidance. Thus the Kitson interpretation of the scope of guidance must be ruled out as a statement of the nature of personnel work. It falls clearly under the classification of too-restrictive definitions.

Koos and Kefauver accept neither the Brewer nor the Kitson idea of the nature of guidance. They suggest "a concept which is neither restricted to vocational guidance at one extreme nor extended to make guidance synonymous with all education at the other."³⁹ They criticize the Brewer position in these words:

Guidance is not the whole of education. The term should not even be regarded, as some seem to regard it, as a beneficent synonym for education. It represents one aspect only of the process of education, notwithstanding this is a momentous one. The scope of guidance cannot be understood to comprehend in any large measure the other processes or features of the school, such as teaching, supervision, curriculum-making, vocational training, or the extracurriculum. At the same time, as the illustrations given have indicated, there are vital points of contact that permit the guidance program to enhance the service of these features, or *vice versa*. The type of expansion of the concept that would include these other features of the school is sheer inflation.⁴⁰

They criticize the Kitson position in these words:

Guidance in relation to vocation is only one portion of the whole program, although a most important one. The word "educational" is understood to comprehend preparation for vocation and to admit additional relationships, no less important than the vocational.⁴¹

Guidance according to these authors includes three general functions: "(1) informing students concerning educational and vocational opportunities, (2) securing information con-

³⁹ *Op. cit.*, p. v.

⁴⁰ Koos, Leonard V., and Kefauver, Grayson N., *Guidance in Secondary Schools*. New York: Macmillan, 1932, p. 19.

⁴¹ *Ibid.*, p. 15.

cerning the student, (3) guiding the individual student."⁴² Functions one and two are designated as preparatory to function three,⁴³ under which fourteen counseling problems are listed. All of these are educational and vocational, and thus one may conclude that by guidance Koos and Kefauver mean educational⁴⁴ and vocational guidance. These are of course important personnel functions, but few personnel workers have restricted the personnel field to these two activities. The Koos and Kefauver concept of guidance is therefore no more acceptable as a definition of personnel work than those of Brewer and Kitson.

It would be interesting, if space were available, to review the positions of Myers, Proctor, and several other guidance authorities. All are related, in the broad, to one of the three guidance definitions discussed. It can be concluded, therefore, that no definition which has as yet been stated makes guidance and personnel work synonymous.

VII. A DEFINITION IMPLICIT IN THE LITERATURE AND IN RECENT PRACTISE

Up to this point in the discussion the writer has sought to do four things: (1) to indicate the confusion in the personnel field, (2) to suggest that the disorder will continue until a common understanding has been reached through a generally acceptable definition, (3) to demonstrate that most current definitions are either too inclusive or too restrictive, and (4) to point out that guidance and personnel work are not the same. The remaining pages are devoted to an attempt to develop what seems to the writer to be a more adequate definition of the personnel field. This definition, it will be indicated, is implied in the writings of a number of personnel

⁴² *Ibid.*, p. v.

⁴³ *Ibid.*, p. 403.

⁴⁴ In the early pages of their book Koos and Kefauver include recreational, health, and civic-social-moral guidance; but they pay little attention to them from that point on. It seems fair to say, therefore, that *guidance* to these writers means educational and vocational guidance.

people. It is also implicit in the organizational plans which have recently been adopted by several universities.

At the outset one must recognize the justice of Esther Lloyd-Jones' criticism⁴⁵ of the synonymous use of such terms as *personnel work*, *personnel services*, and *personnel administration*. She points out, and correctly, that although many individuals employ these terms interchangeably they do not mean the same thing. Before attempting to distinguish between them, however, it should be observed that they have something to do with the relationships between colleges and students. If the nature of these relationships can be determined, then the nature of personnel work can, perhaps, also be determined.

In general three different kinds of college-student relationships are recognizable: those that have to do with business arrangements, those that have to do with instruction, and those that have to do with extra-instructional activities. Under business relationships come the payment of fees, the renting of equipment and apparatus, the purchase of supplies, and a large number of other routine operations that have to do with *matériel*. Under instructional relationships come all varieties of contacts having to do with the formal courses of the curriculum whether these be with individual students or with groups, library and laboratory work, and the determination by examination of the results of instruction.

Under extra-instructional relationships come a range of activities including among others admissions, student orientation to college life and work, housing, health, the securing of part-time employment and financial aid, social and extra-curricular programs, and many types of counseling upon such diverse problems as the courses to be taken during a particular term, the way to develop one's social intelligence, and what to do about homesickness or lovesickness.

In the nineteenth century college faculty members engaged

⁴⁵ Lloyd-Jones, Esther, "Personnel Administration." *The Journal of Higher Education*, Vol. V (March, 1934), p. 142.

in all three of these types of relationships with students, but in recent years the increased size of colleges and universities and the development of more comprehensive and complex programs have made a functional division of responsibilities inevitable. Especially since the Cooke study⁴⁶ of business practices in 1910 faculty members have relinquished to business offices practically all business relationships with students. Similarly faculty members have more and more tended to give all their energies to instruction and research rather than to extra-instructional relationships with students. This has been true because in most institutions promotions and increases in salary have come to be determined chiefly by scholarly production.

To assume responsibility, therefore, for extra-instructional relationships with students a new group of officers have within the past few decades been appointed upon practically every campus in the country. These individuals have been, and are, called by all sorts of names, but in recent years they have come generally to be known as student personnel workers. The term is a generic designation for all individuals whose relationships with students are neither routine business relationships nor instructional relationships.

With these three distinct types of institutional-student relationships in mind it is possible to discuss the nature of student personnel work. Obviously personnel work is what personnel workers do, the activities for which they assume responsibility. These activities, as indicated, are distinct from business and instructional activities. An acceptable definition of personnel work must, therefore, state its separateness from business and instructional activities.

Business activities must be ruled out because business relationships with students are, and must be, essentially impersonal. The fact that a college or a university is an educational and only incidentally a business organization should dominate

⁴⁶ Cooke, Morris Llewellyn, *Academic and Industrial Efficiency*. A Report to the Carnegie Foundation for the Advancement of Teaching. Bulletin No. 5. New York: 1920.

the thinking of every member of the business staff, but business managers and their assistants have their necessary and specialized work to do which cannot include giving attention to the personal development of individual students.

At several points the business and personnel divisions meet. Both organizations are interested in housing, food services, loans, scholarships, and in one or two other activities. The business staff is concerned, however, only with the financial aspects of these undertakings. The personnel staff assumes—or should assume—responsibility for their direction as educational enterprises, keeping of course within the framework made necessary by financial considerations. Business departments exist to facilitate the educational work of the institution, but they are not educational units. They serve best by concentrating upon the purposes for which they have been established.

Instructional activities must also be ruled out because faculty people everywhere recognize a distinction between their teaching and their extra-instructional relationships with students. At few institutions have faculty members relinquished all out-of-class responsibilities to personnel officers, but the tendency everywhere is to assign extra-instructional activities to members of the staff who teach part time or do not teach at all. This tendency has been strengthened by the growing conviction that not all professors are temperamentally equipped to deal with students outside the curriculum.

The tendency has further been strengthened by the development of techniques which require special training or unusual aptitude and experience. No matter how much a faculty member may be interested in his students as individuals he is only occasionally prepared to develop, administer, and interpret intelligence tests, personality inventories, and other instruments which have become essential to effective counseling. Moreover, few professors are willing to add to their teaching and research loads such duties as the administration of dormitories, loans and scholarships, placement, discipline, social programs, extra-curricular activities, and other divisions of

student life. More often than not it is even difficult to secure the service of professors on policymaking committees for these activities; and, by and large, most faculty members have been willing to see their administration assigned to personnel workers.

If this analysis of the separateness of business, instructional, and personnel activities is correct, what then is the nature of personnel work? The writer proposes the following definition:

Personnel work constitutes all activities undertaken or sponsored by an educational institution, aside from curricular instruction, in which the student's personal development is the primary consideration.

This definition distinguishes personnel from routine business activities by the phrase "in which the student's personal development is the primary consideration." It also distinguishes personnel from instructional activities by the phrase "aside from curricular instruction."

Is this an acceptable definition of personnel work? That remains to be seen. The writer presents it for the critical appraisal of those who may be interested. It can be pointed out, however, that the definition is clearly implied in the discussions of several other, if not most, personnel writers.

In the first place consider the Koos and Kefauver discussion of guidance. As indicated they use the term *guidance* to designate the counseling function of personnel work which they separate clearly from instruction. Explicitly they write, for example, that "*teaching cannot often be guidance and guidance does not comprehend methods of teaching.*"⁴⁷ They also rule out both the supervision of instruction and curriculum problems from the field of guidance. They write that the "*supervision of instruction is concerned with the improvement of teaching and is not guidance*"⁴⁷ and that "*the work of curriculum making is not guidance.*"⁴⁷ In other words instruction and counseling are distinct functions which is much the same as saying that instruction and personnel work are distinct.

⁴⁷ *Op. cit.*, p. 18. Italics theirs.

Turning to higher education an examination of the itemizations⁴⁸ of Jones,⁴⁹ Lloyd-Jones,⁵⁰ Townsend,⁵¹ Strang,⁵² to name but four writers upon personnel problems in colleges and universities, will demonstrate that all of these authors exclude all business and instructional relationships from their list of personnel functions. No one of them, in the opinion of the writer, submits a full compilation; but completeness is not now important. What is important is their implicit recognition that personnel work and business and instructional activities are different. The definitions of these writers do not make the clear-cut distinctions proposed in this article, but their lists of personnel activities manifestly do.

It is interesting to compare the functions enumerated by Jones, Lloyd-Jones, Townsend, Strang, and still others with those of Hopkins and Clothier. In 1926 Hopkins⁵³ proposed twenty personnel functions. Six of these had to do with instruction: placement tests, curriculum, selection of instructors, methods of instruction, objective tests, and research concerning teaching. Five years later Clothier,⁵⁴ in making his tabulation, dropped five of these six keeping only the selection of instructors as a personnel function. Clothier's other fourteen items are all clearly personnel activities having no direct relationship to instruction.

Clothier must have checked over the Hopkins table of activities since he referred to his monograph in his article and since the table is its very core. One may assume, then, that he purposely eliminated these five items. And why? Because,

⁴⁸ Because of spatial limitations these cannot be reproduced. The reader is referred directly to the cited statements of the writers.

⁴⁹ Jones, Lonzo, *A Project in Student Personnel Service Designed to Facilitate Each Student's Achievement at the Level of His Ability*. Pub. by Univ. of Iowa, Vol. V, No. 1, of *Iowa Studies*, November 1, 1928.

⁵⁰ *Op. cit.*, p. 141.

⁵¹ Townsend, M. E., "Administrative Phases of a Student Personnel Program." *Educ. Adm. & Supervision* (December, 1935), pp. 641-56.

⁵² Strang, Ruth, *Personal Development and Guidance in College and Secondary School*. New York: Harper & Brothers, 1934.

⁵³ *Op. cit.*, p. 7.

⁵⁴ *Op. cit.*, p. 14-15.

it is submitted, he had become aware of the growing opinion that personnel work and instruction are separate. He did not, however, go the whole way, still considering the selection of instructors a personnel activity.

But is it a personnel activity? In a few institutions personnel officers have something to say about the choice and promotion of members of the faculty, but at no institution of which the writer knows have they any real administrative voice in the matter. The selection of faculty members properly belongs in the hands of instructional administrators. Neither by definition nor practice does it belong in the bailiwick of personnel administrators. Personnel people can be influential at this point only by developing attitudes among deans and department heads which are favorable to the choice of instructors who, to quote Clothier, take "a sincere and intelligent interest in the individual student." More will be said on this point in connection with the discussion of the personnel point of view.

VIII. SUPPLEMENTARY DEFINITIONS

Before discussing the personnel point of view, however, three other terms should be discussed — *personnel services*, *personnel research*, and *personnel administration*. Two of these may be disposed of promptly. It is proposed that the term *personnel services* is exactly synonymous with the term *personnel work*. It is proposed that *personnel research* is a type of personnel work, i.e., investigation of problems arising in personnel work. By this definition much of the research being done in personnel bureaus is not personnel research at all. It is really instructional research which personnel people have undertaken because no other agency exists to do it. The sooner instructional administrators see the need of initiating and directing their own research programs the better for higher education. Properly every institution should be continuously and thoroughly studying its curriculums and methods of instruction using the best research techniques available.

Such research, however, is not personnel research even though it is erroneously so designated in a number of places.

The third term, *personnel administration*, requires discussion although it may be briefly defined. The word *administration* has different meanings in government, business, and education. In education it means the supervision or direction of an activity or group of activities. Personnel administration may therefore be defined as the supervision or direction of personnel work.

Lloyd-Jones has suggested that "student-personnel administration is one of the three main divisions of educational administration"⁶⁵ — the other two being instructional and business administration. The writer has elsewhere⁶⁶ made a similar observation. In very few institutions, however, has the importance of personnel administration yet been recognized. Business and instructional divisions have been distinct entities for many decades, but the personnel division in most institutions has not yet achieved a comparable status. Many personnel units have been established on innumerable campuses, but usually they operate independently and without coordination. Personnel work will not attain its potential stature until all agencies which work in the personnel field are correlated and placed under the direction of a major administrative officer.

The present plan of decentralized functioning should be supplemented by centralized policy making and general supervision. Steps in this direction have already been taken at several institutions: Chicago, Duke, Oregon, and Northwestern. At all of these institutions all extra-instructional relationships with students are coordinated under the direction of a major administrative officer. At Chicago he has the title of Dean of

⁶⁵ *Op. cit.*, p. 142.

⁶⁶ *The Personnel Bibliographic Index*. Columbus, Ohio: The Ohio State University, 1932, p. 3. Four instead of three administrative divisions are here listed, the additional one being the administration of research. To this a fifth should perhaps be added, the administration of public services and public relationships. Neither of these two divisions, however, is concerned directly with student affairs.

Students, at Duke, Vice-president in Charge of Student Welfare, at Oregon, Dean of Personnel Administration, and at Northwestern, Personnel Director. The responsibility of these officers is to see that all functional personnel people work together harmoniously and that extra-instructional relationships with students are developed. It is also their responsibility to coordinate the work of the entire personnel staff of their institutions with the instructional work under the direction of academic deans and heads of departments. Each is the officer to whom the president turns in student personnel matters. Because of the success of this method of organization, it is likely to become more common within the next few years.

Much more than this needs to be said about personnel administration; but since the space is not now available, the discussion may proceed to the definition of a fifth term, i.e., the *personnel point of view*. Many writers use this term, but either they use it as the equivalent of one of the other expressions or their meanings are vague. The writer proposes the following as a desirable definition:

The personnel point of view is a philosophy of education which puts emphasis upon the individual student and his all-round development as a person rather than upon his intellectual training alone and which promotes the establishment in educational institutions of curricular programs, methods of instruction, and extra-instructional media to achieve such emphasis.

This definition has two parts, and each should be examined separately. The first part has to do with *a kind of emphasis*, the second with the media through which the emphasis is expressed. An understanding of the difference between these parts is essential.

The emphasis "upon the individual student and his all-round development as a person rather than upon his intellectual training alone" is not, it should be made clear, the private concern of personnel workers. As a matter of fact personnel people are merely subscribing to the point of view of a long line of philosophers dating at least from Socrates and leading

to John Dewey and his adherents. The personnel movement will improve its progress and its status by recognizing that its roots are deeply imbedded in the thinking of some of the world's major social philosophers. The psychology of individual differences from which many personnel activities have directly grown is but a verification by science of an age-old philosophical insight.

Turning to the second part of the definition, it must be similarly emphasized that promoting the establishment of media to achieve the student's all-round development is again not the peculiar responsibility or objective of personnel workers. Many other individuals and groups are striving toward this same end, and personnel people are but co-workers with them. Unfortunately no organization has as yet been established in higher education which undertakes to accomplish objectives similar to those of the Progressive Education Association and other groups in elementary and secondary education. Every year, however, more administrators and faculty members are stressing the need for a more intelligent interest in individual students. The programs at Harvard, Princeton, Swarthmore, Bennington, and several other institutions are monuments to their insight and enterprise. Personnel people, in general, have had little if any part in developing them.

In many colleges and universities, however, personnel workers are the chief proponents of the concept of all-round development. Most faculty members are so completely engrossed in their own subjects that they perceive only a single facet of the student's mind and personality. In such institutions personnel people must carry the torch. By education and persuasion they must seek to stimulate faculties to modernize and humanize their curriculums, their methods of instruction, and their attitudes toward personnel work. At all times, however, they must remember that the philosophy which they call the personnel point of view is a common heritage of several groups of progressive educators who know it by many other names. Personnel workers prejudice and sometimes defeat their purposes when they give the impression, as they

too frequently do, that they want to run the entire educational show.

Is this proposed definition of the personnel point of view⁵⁷ implied in the literature? The answer seems to the writer to be in the affirmative. Only one reference needs to be cited in support of this opinion. If the reader will substitute the words *the personnel point of view* for the words *personnel work* quoted from Clothier on page 7 of this article, he will have a definition of the personnel point of view which concurs with that which the writer has submitted above. The labeling of this statement as a definition of personnel work is not consistent with Clothier's enumeration of personnel functions, but it makes a most acceptable definition of the personnel point of view.

IX. THIS AN INCOMPLETE DISCUSSION

A short review of the personnel field, such as this, must necessarily leave much ground untouched. A great deal more, for example, should be said about personnel administration; and several pages should properly be devoted to a discussion of the relationships of academic deans, department heads, and ordinary faculty members both to personnel administration and the personnel point of view. A complete list of personnel services should also be developed. These and other developments of the proposed definitions must be left to another time.

Two considerations, however, need brief attention to avoid misunderstanding. In the first place the distinctions proposed between business, instructional, and personnel administration do not mean that the student needs to be compartmentalized. A division of labor is both unavoidable and desirable, but at every institution some one individual must seek to know the whole student. Properly that individual should be his educational counselor, who is often a faculty member serving part time as a personnel officer. To him should come data from all

⁵⁷ A number of principles stem from the personnel point of view which the writer hopes to discuss at another time.

sources so that he may counsel the student intelligently. In a later article on personnel coordination the writer hopes to develop this idea. Enough now to indicate its importance.

In the second place, the proposed separateness of instructional and personnel activities does not mean that personnel work should be undertaken only by a special staff of personnel workers completely distinct from the instructional staff. A number of technical services such as the management of health programs and the making of thorough personality analyses of students must be done by experts, but faculty members almost universally participate in practically every variety of personnel work. This arrangement is inevitable and desirable; but when members of the instructional staff are doing personnel work, they are working (or should be working) under the direction of a personnel administrator and not under their department heads or academic deans. Institutional morale as well as economy require that many faculty members act both as instructors and personnel workers, but this necessary dual service should not confuse the difference between personnel work and formal instruction. These interrelationships the writer hopes to discuss at greater length in the article he plans on the coordination of personnel activities.

X. THE NEED OF AGREEMENT

In conclusion the writer should like to observe that the point of view presented in this article seems to him to be but a summarization of the thinking of a number of individuals. Personnel people in rather widely separated areas are recognizing the natural affinity of their work. In 1934 seven personnel organizations⁵⁸ came together to organize the American Council of Guidance and Personnel Associations. Kitson reported the organization meeting, in part, as follows:

At the Cleveland meeting (February, 1934) the centripetal

⁵⁸ American College Personnel Association, National Vocational Guidance Association, National Association of Deans of Women, Collegiate Bureaus of Occupations, Personnel Research Federation, Institute of Women's Professional Relations, and Southern Woman's Educational Alliance.

force of our idea became so strong that we exclaimed: "Why, we are kinfolk!" And at an enthusiastic luncheon we instructed our several presidents to appoint delegates who should meet and organize a national association through which we might jointly work for the realization of our ideals.⁶⁹

A conviction of kinship among personnel people is undoubtedly developing with some rapidity. It is particularly obvious among personnel workers in colleges and universities. The time is perhaps ripe, therefore, for representatives of all college personnel groups to come together for a definitive discussion of the nature of their common task. Nationally and on every campus personnel officers should be working together in a coordinated effort to spread the personnel point of view and to develop programs commensurate with the extra-instructional needs of college students. Such coordination requires an understanding of the unity of their several fields of activity under the basic term *personnel work*. Until a generally acceptable definition is achieved, coordination will very likely not be realized. More than that, faculty members and administrative officers will continue to be perplexed and therefore uncooperative.

W. H. COWLEY,
Ohio State University.

⁶⁹ Kitson, Harry D., "Our Common Cause." *Occupations*, Vol. 13, No. 8 (May, 1935), p. 709.

A New Deal for the Needy Student?

FINANCIAL aid for needy students has occupied much attention in this country from its very beginnings.

Equality of opportunity, that original New Deal sought by the settlers and pioneers of early days, meant that the advantages of schooling should be denied to no child merely because of social or economic disadvantage. For the founders, knowledge was indeed power, and they strove to open the gates of education to all. As a consequence of this ideal, communities, churches, individuals strove to make learning possible even for those with little or no funds of their own. For example, among several schools whose charters antedate the Constitution, Andover and Exeter were founded "to promote and encourage public free schools and academies for the purpose of instructing youth." Harvard and Yale and other colleges had already long maintained the same ideal. Soon after it had become an independent nation, moreover, this country officially undertook what was then a novel social experiment in universal public education, while further private benefactions continued to encourage the attendance of students with limited means at endowed schools and colleges. The latter, almost without exception, have ever since emphasized the democratic policies consistently characterizing our educational institutions. Even those which at times have been quite erroneously regarded as primarily for the rich, in reality have prided themselves on a tradition of equal opportunity for all able scholars, irrespective of social or economic status.

But the cost of education, particularly at the higher levels, has steadily mounted. State appropriations, scholarship funds and other endowments are generally insufficient to defray the full cost of students' schooling. In order to continue equality of opportunity in education, irrespective of financial status, another development largely peculiar to this country has led to special organization of facilities for earning one's way through school and college. It is perhaps not generally

recognized that many of our leading private preparatory schools offer much the same facilities for self-support as do American colleges. At two of the oldest, Andover and Exeter, various agencies patterned after those in some colleges—the student laundry, or suit pressing company; the stationery, haberdashery or class banner concessions—flourish. At Kent, from its establishment, the cost of service operations has been minimized by having all students share in the performance of routine housekeeping tasks. Many other examples could be cited to show that, by “working his way” and winning scholarships, the poor boy can substantially reduce the cost of his education at numerous first-rate private schools, often erroneously regarded—on the basis of their normal charges to those not in need of aid—as prohibitively expensive for all but the favored few.

But it is in the college field that self-support has been most widely recognized; and there, too, the danger of its interference with scholastic work has become most acute. The compact, scheduled organization of private school life and curricula, together with the rather close supervision of each boy's activities and study hours, permits him to earn money on the side with less encroachment upon educational pursuits than is usually the case at college. Consequently the problem of the needy student, particularly during the last few years of unusually widespread economic stress, has become increasingly troublesome at the university level. This paper describes a relatively new attempt to relate student employment to the educational program in an effort to make self-support supplement, rather than interrupt or handicap, the individual's scholastic pursuits.

Various devices for coping with this problem have been tried, and various opinions expressed regarding its seriousness. Some institutions limit the amount of classroom work which a self-supporting student may carry, in proportion to the amount of effort he is forced to expend on earning money. Others provide sufficiently large scholarships to make remunerative employment unnecessary, for at least a selected

few whose intellectual promise is outstanding. Considerable prominence has recently been accorded the splendid Harvard experiment in this direction. President Conant believes it socially and educationally wasteful for students of superior ability to expend any considerable part of their total time and energy upon making a living; and that a great national university should offer facilities for higher learning to prospective scholars of first rank, on a basis which makes such diversion of their efforts into non-academic channels unnecessary.

The Harvard Junior Fellowships established in accordance with this conviction will undoubtedly have a lasting effect upon student-aid policies there and elsewhere. But, granted that the endowment of an educational aristocracy—not of wealth or family, but of brains—is desirable, such a program still can touch but a small fraction of those needing and meriting financial assistance. Its sheer expense alone necessarily restricts its scope. Moreover, some educators, while realizing that an excessive self-support burden may defeat its own purpose through too great interference with academic work, are also fearful lest complete subsidy may prove equally harmful through “spoiling” even the most brilliant students. They have therefore favored a middle course, whereby promising scholars may obtain part of their expenses through scholarships, and part through enough personal effort to enhance their own appreciation of what they receive as outright grants. They have furthermore attempted to direct these self-support efforts along lines which will supplement, rather than conflict with, educational aims. From this philosophy have developed various plans of “cooperative” employment, enabling students to earn part of their expenses through work related more or less directly to their course of study.

Probably the earliest definite program of this sort was initiated thirty years ago at the University of Cincinnati. There, through the cooperation of local industries, alternate periods of classroom instruction and of full-time employment, at fixed and gradually increasing rates of pay, enable the student to earn a large share of his expenses and at the same time

to acquire practical experience. By devoting his full attention to successive programs of study and of work, learning and earning go hand in hand. The analogous "Antioch plan" has been perhaps the most widely publicized formal curriculum of this sort, although numerous other colleges, notably Berea, have developed similar programs.

These "cooperative employment" procedures, however, are largely vocational in nature. That is, the work program, while related to the course of study, aims primarily to supplement this through affording practical experience, or occupational "try outs" in fields which students expect to enter after graduation. This is a valuable and sensible objective, but it necessarily stretches out the regular academic course over a somewhat prolonged period and to that extent delays graduation. So, of course, does enrollment (as is common at numerous universities) for only one or two terms, or quarters, at a time, interspersing these with periods of outside employment, during which funds for further study are accumulated.

In either case, the only practical alternate to complete, periodic interruption of the academic program is segregation of the students thus working their way, from those pursuing a more usual course. This tends to deprive the "cooperative" group not only of association with other students of a different type and with different interests than their own—which is one of the real intellectual opportunities to be offered by a university. It also handicaps their participation in extra-curriculum affairs. Despite the recognized danger of over-emphasizing these elements in the college experience, they do have values not lightly to be ignored.

Much may be said in favor of such intermingling of theoretical and applied knowledge, with especial reference to vocational training and experience. It offers an interesting contrast to the policy mentioned earlier, of making any interruption or diversion of scholarly effort unnecessary. But the latter possibility at best can be offered to only a selected few; and the former, though much more widely available, has certain disadvantages already noted. Self-support work which

can be integrated with a full-time academic program, which can supplement and enrich this in an *educational* rather than a *vocational* sense, is an even more recent and promising development. This aim—arising in part, as have various other permanent gains, out of the depression—may well revolutionize our student-aid philosophy. Colleges have learned that they can directly utilize the services of students to mutual advantage, in numerous ways not earlier attempted. If, at the same time, the needy student can so arrange his remunerative employment as to leave him some time for sharing in normal college activities—which, like democracy in education, are a real part of the American tradition—then a genuine advance has been made towards solving his problem.

I do not here refer to the employment of advanced students as readers or instructional assistants, because that has long been an accepted medium of aid. At some institutions in fact, undergraduate instruction has undoubtedly suffered through too extensive use of graduate students in the actual conduct of elementary courses. This is no doubt beneficial to the teachers-in-training, but not always to the freshmen who sit at their feet. I have in mind rather the employment of able undergraduate as well as advanced students in libraries, museums, or university offices; in research projects; in the design and construction of laboratory apparatus; in the trial and validation of various tests; in statistical analyses; in the classification of collections; in the preparation of digests, bibliographies, microscopic slides or photographic exhibits; in the operating, financial or maintenance departments—in many functions related to the educational, social and business responsibilities of the institution. Intelligent and often highly skilled service can thus be obtained with more than merely economic benefit to the student needing work and, withal, at a saving in administrative expenditure.

Yale University is particularly fortunate in this respect, because its recently inaugurated plan for undergraduate housing includes an employment program specifically provided by Mr. E. S. Harkness, whose generosity and foresight made

possible the establishment of both the so-called House Plan at Harvard and the College Plan at Yale. Himself a Yale graduate, he has long been interested in the democratic nature of that institution and its student body, whose tradition has made outstanding undergraduate recognition for many years dependent upon personal qualities of leadership, ability and accomplishment, rather than upon wealth or family. He was anxious to give self-supporting students in these new colleges an opportunity to earn part of their expenses without segregation from their financially more fortunate classmates, or undue interference with either their academic work or their social contacts. As part of the funds contributed by him for the erection and maintenance of the colleges, a substantial endowment was therefore set aside for the "useful employment" of their needy undergraduate members by the University itself.

Special circumstances thus led to the establishment of this procedure at Yale (known as the Bursary Employment Program) on an unusually favorable basis, since the amount of money available for its operation is considerable. Yet the principles of this plan lend themselves to adoption by other institutions as well; and particularly to the utilization along similar lines of state or federal grants-in-aid, such as those provided by the National Youth Administration. For example, the experience gained in administration of the Bursary Employment Plan for undergraduates has proved extremely helpful in making N.Y.A. funds serve an effective educational purpose for the many advanced students assisted at Yale through that source.

In the hope that the programs thus developed may prove of interest and possible benefit to other institutions the following outline of their main features is presented. As their history and organization differ—the one being now several years old and permanently endowed; the other newer and of uncertain duration—the undergraduate Bursary system and the graduate N.Y.A. program will be discussed separately.

The donor whose generosity made the College Plan possible

has from its inception expressed the hope that all undergraduates, irrespective of their financial status, might equally enjoy its full benefits. It was felt that employment of student waiters in the respective College Dining Halls would of necessity take up so much of these men's time during meal hours as largely to deprive them and their associates alike of a natural opportunity for informal and mutually advantageous social contacts. It was therefore determined to set up, as an integral part of the College Plan, an endowment which would annually provide funds for student employment in an amount not less than the substantial sums formerly earned by undergraduates working for board directly.

The so-called College Plan at Yale, like the House Plan at Harvard, is intended to break up the over-large social aggregations known as classes into smaller units living, eating, and, to some extent, working together. Each unit is a self-contained dormitory of the quadrangle type with its own dining hall, reading and recreation rooms, its Master or Head, presiding over members of the faculty associated with the College and designated as Fellows. General control of the College Plan at Yale is vested in the Council of Masters, of which certain administrative officers of the University are also members. In 1932, a comprehensive survey of student employment and expenses was made by a joint student-faculty committee appointed by President Angell, and when the College Plan was initiated in 1933, the Council of Masters, the Bureau of Appointments, and representatives of the student body cooperated in formulating that part of the student employment program which was directly associated with the College Plan itself.

Throughout the development of this program certain guiding principles have been followed. It was agreed that the work in question should all be of definite value to the University, compensated at a fair rate of pay for services duly rendered. Selection of appointees takes into consideration the financial needs as well as the specific qualifications of applicants. Only those in good scholastic standing are eligible for

such positions, which thus become in effect working scholarships. They have been called Bursary Appointments for convenience in distinguishing them from outright scholarship grants. The Council of Masters and the Bureau of Appointments, through a joint committee, supervise distribution of the self-supporting population and allocation of the employment funds among the several colleges on the basis of their relative needs, as well as the selection of individual students for particular positions.

The positions in question will this year enable 283 students to earn their board or more, and 105 their room expenses, by working either for their own college directly or for some other department of the University. In addition, 66 men holding positions of particular responsibility in their colleges or doing work of specialized nature for the University Library, Museums, the Institute of Human Relations, the Personnel Office, or various Departments of Study, will receive proportionately higher compensation.

About one-third of all the Bursary students hold what are known as "in-college" jobs, performing various duties directly in and for their own college or its faculty staff. The most important of these positions is that of Senior Aide. He exercises general supervision over all Bursary appointees in his own college, keeps their work-records, prepares pay vouchers, interviews new candidates for appointment, advises the Master concerning many matters relating to undergraduate life within the college and acts as a general handy man and executive secretary. Under him there are usually several other aides; a Librarian, with his staff of student monitors; an Athletic Secretary, who organizes and informally manages the various teams representing his college in the varied intramural sports program; a Student Office Manager, with typists or messengers reporting to him; possibly a Curator or College Historian to collect and preserve memorabilia relating to the college itself, the individual whose name it may bear or the accomplishments of its faculty and student personnel. Still

other Bursary men are assigned as special aides to the Fellows of their own, or other, colleges.

Frequently two or more departments, as well as the Master or some Fellow in his college, may simultaneously apply for a particular student in whom they have a special interest. (When that happens, the college usually wins out.) Appointments to executive positions in the colleges themselves are made first; followed by those to faculty or departmental posts with special requirements. The more routine types of work are filled last, usually by students of lesser ability than those recommended for the more responsible or unique assignments. Out of 454 placements made for this year, 299 called for some particular proficiency, usually in relation to certain courses of study or fields of academic concentration. Forty-four more were to executive "in-college" jobs, making three-fourths of all the placements represent carefully "hand-picked" selection. Many of the remaining clerical positions, while of more routine nature, nevertheless also contain definite educational possibilities, whose realization will depend largely upon the interest and initiative of the students themselves. Though these values are thus stressed throughout, no formal academic credit is allowed for Bursary work.

Typewriting ability is so frequently desired on such positions that a special typing class, using the touch system, has been instituted for prospective Bursary appointees. Incidentally, it is at present being taught by a student who himself learned typewriting in this way two years ago, and who is now compensated from the Bursary fund for his services as instructor. Other duties of importance and responsibility—such as those performed by the senior aides and their chief assistants—call for outstanding qualities of personality and leadership rather than for a particular accomplishment. These "in-college" jobs are highly coveted and are progressively awarded on a competitive basis. Such executive experience may prove of great value to graduating seniors in obtaining good opportunities in business and in making the most of them thereafter. The College Masters are united in their enthusi-

asm for the services rendered by their various Bursary aides. And in the great majority of these positions the students themselves feel that, in addition to their remunerative value, such assignments offer them other real benefits.

Careful analyses have been made of the various jobs, of the qualifications and responsibilities pertaining to each, and of the experience or skill it requires. Positions have been classified as to rates of pay and promotion, with sufficient flexibility to permit appropriate recognition of unusual demonstrated ability. Individual yearly stipends range in accordance with the time, experience, ability, and initiative required for the various jobs, from \$200 to as high, in a few instances, as \$715 (full tuition and board). The amount and quality of work performed is reported at regular intervals by each appointee's supervisor, and time lost for any cause must either be made up within a reasonable period or deducted from his earnings. In no case is a student expected to devote more than twenty hours a week to Bursary employment, and in most cases the maximum weekly working period is sixteen hours. The base rate of pay, fifty cents an hour, enables a student to earn his board in return for sixteen hours, and his room for twelve hours, work a week. (The less expensive rooms in all colleges are reserved for those in most financial need.) Although the rates of remuneration and the consequent return from the more responsible and specialized positions are greater, the total time demanded is in no case such as to handicap the student unduly in respect to classroom requirements or other activities.

When this program was in the stage of initial organization, considerable skepticism was encountered among members of the faculty as to the probable value of such student work, particularly on "out-college" assignments. The latter have since become increasingly important and numerous. Applications for next year's Bursary appointees have now been received from almost every department and altogether exceed by over a hundred the number of men available.

Pre-medical students so far as possible are assigned to the

Medical School or to other appropriate scientific Departments of Study, where they work as chemists, cataloguers, librarians, or, when qualified, as laboratory and research assistants. Others are employed as draftsmen, assistant curators and technicians in the Museums of Natural History and the Fine Arts. The Department of Applied Economics has assigned three of its own students to research on stock exchange lists, corporate reports and general data on business conditions. The Institute of Human Relations is using 30 undergraduates as laboratory engineers, draftsmen, and social field investigators. The Peabody Museum of Natural History offers opportunities of educational value to men especially interested in that field. The Department of Personnel Study offers analogous training in test analysis and statistical methods to ten students. Among the most interesting positions are those of a scholarly nature in the University Library embracing work on manuscripts, rare books, local history, and many collections of various kinds; and some 50 appointments as individual aides to Fellows of the several colleges, in connection with research in progress.

With such a multiplicity of jobs and variety of qualifications demanded, the process of selecting appointees is somewhat like assembling an intricate jig-saw puzzle of nearly 500 pieces—with the added difficulty that some of these may equally well fit into several places, and others may fit none at all. Indeed, the final outcome is never ideal—some excellent openings with exacting specifications go begging for want of suitable candidates, while others may prove disappointing to their incumbents. Not all students can be placed in accordance with their primary interests or capacities, nor do all come up to expectations; although the number this year reported as definitely unsatisfactory is surprisingly small.

More than 95 per cent of the undergraduates holding Bursary positions this year have been rated by their immediate employers as satisfactory, superior or excellent, while many have rather unusual accomplishments to their credit. Several have proved extremely skillful in laboratory work or in the

construction of experimental apparatus. Others have become so valuable to various curators that their graduation this year is deemed a major calamity! Some have become sufficiently adept at specialized work that they now plan graduate study in the same or a related field, and are being strongly recommended by their supervisors for fellowships to make that possible.

One student prepared a rock thin-section which the chairman of the Geology Department considers the equal of any he has ever seen. Another assigned to the Peabody Museum has in three years of employment there become trained not only in the construction of apparatus but also in the care and identification of skeletons in osteology. Still another, a pre-law student, has done valuable research on the sociological aspects of legal problems in the local community. A pre-medical senior is completing his third year of work as a bibliographical and research assistant in the field of anatomy; while a fellow appointee in the same field is about to undertake the cataloguing and classification of several thousand surgical operations performed during the past ten years at the New Haven Hospital. The results of this assignment will be of great importance to the Medical School. The Bureau of Appointments employed one Bursary student as a typist. Already excelling in this skill, he also acquired on his own initiative a sound knowledge of shorthand, which greatly enhanced his usefulness and value to the department. Another, as assistant to the Supervisor of Student Agencies, audits financial reports, interviews students seeking agency employment, arranges the assignment of "heelers," and in general is dispatching an executive position with distinction.

This year 454 Bursary positions, distributed among nine colleges and 45 other departments of the University, will enable undergraduates to earn nearly \$125,000 in all. It must be borne in mind that facilities for undergraduate financial assistance have not been increased outright to an equivalent extent, since many of the new positions supplant work for board or other jobs which, by their nature, cannot advanta-

geously be carried on by members of a college. The real advantage gained by the latter under the new system, therefore, derives rather from the superior nature and value of the employment provided than from any corresponding increase in the sum of available facilities. At the same time, transfer of these men to their new activities has enabled other self-supporting students to fill the positions thus vacated. For example, many upper classmen previously employed as waiters in the dining hall are now on Bursary appointments, and an increased number of freshmen (none of whom are members of colleges) can now secure board jobs there. Upper classmen not in colleges, as well as students in the Law and Graduate Schools, have also succeeded to positions previously held by men now aided instead through Bursary appointments. In this way the program, by actually creating new opportunities for students, has proved an indirect benefit to those needing work, whether themselves members of colleges or not; and has proved particularly serviceable during the last few years of financial stress in *stabilizing* means of aid and enabling undergraduates to budget their resources with confidence.

Experience gained in developing the "Bursary Plan" had much to do with shaping procedures at Yale for the utilization of National Youth Administration funds in behalf of graduate and professional students. The University did not request any allotment from this source for undergraduate aid, largely because most of the deserving and needy undergraduates were already employed on Bursary positions or other work to the extent practical for them to undertake. It is, however, at present enabling advanced students, working under a counterpart of the Bursary plan, to earn nearly \$5,000 monthly from this source through publicly financed "working scholarships." The Graduate and Law Schools, with 82 and 55 N.Y.A. appointees respectively, are the largest participants in this program; but all the other professional schools are also benefiting thereby. Out of 238 such workers in all, 145 are engaged in research projects, related either to their own fields of investigation or to special interests of their faculty supervisors. Twenty-four

are doing bibliographical or other library activities and 27 work of an editorial or statistical nature. All these assignments, totalling 196, and bringing in over \$4,000 a month in earnings, may be regarded as of definite *educational* value to the individuals concerned. Twenty others are engaged on recreational or community-service projects, and 22 on clerical work. There are no "boondoggling" or "leaf-raking" jobs here.

While the educational aspects of student work have primarily determined the nature of such employment, indirect values to the University itself, in furtherance of research and other significant activities, as well as to community welfare, have also developed as important corollaries of the Bursary and the N.Y.A. programs alike. Students have not supplanted other university employees in either case; but both have facilitated numerous worth-while projects or services, which could not otherwise have been financed at this time. Bursary students have alone made possible one of the most appreciated services rendered by the University Library—night operation of the book stacks and availability of the stalls to graduate students and members of the faculty until 10 P.M. throughout the college term. Analogous utilization of N.Y.A. funds has made these serve university or community interests of note, as well as help the workers themselves. For example, a string quartette organized by the Music School now makes it possible for student composers to hear their own works played. Through N.Y.A. funds, the student performers gain experience, while the school as a whole benefits educationally by the institution of this "musical laboratory."

Considerable difference of opinion has been expressed as to the propriety of Federal aid to students, and of participation by privately endowed institutions in such a program. While some members of the faculty and alumni body still look askance at this procedure, and a few have severely criticized the University for its part therein, operation of the plan here along the lines described has considerably offset such criticism. Not a few professors, while still opposing the N.Y.A. pro-

gram in principle, have cooperated fully in its local administration and have expressed themselves as grateful for the services it has made possible. One eminent authority who has devoted much attention to this question said:

I don't think the Government has any business paying college students out of relief funds, even if this does somewhat reduce unemployment. But at the same time I know of no more useful way, for the boys and for the University, in which an equal amount of money could be used for student aid, than the way in which we are utilizing it here. And under present conditions, I don't see where else we could find anything like that amount of aid for our advanced students.

Both the Bursary and the N.Y.A. appointments are made on a contractual basis. Applicants file a statement of their financial needs and sign an agreement as to the duties they expect to perform, the hours and nature of work and the regulations for supervision and recording of their performance. The employing colleges or departments submit periodic reports on Bursary appointees, and payments (in the form of credits at the Bursar's office) are made monthly on the basis of time actually expended. Control over assignments, rates of pay and general operating rules is centralized in the Committee on Bursary Appointments; but responsibility for seeing that the work is satisfactorily performed, and for rating the individuals' competence, is distributed among their supervisors.

Administration of the analogous N.Y.A. program here has been undertaken by the respective schools in which the professional and graduate students are enrolled, with a minimum of centralized control. This is because in a large university the needs and qualifications of applicants, and the relative merits of the different projects to which they might be assigned, present problems too complex and special for a central administrative unit to weigh intelligently. Therefore, the Bureau of Appointments acts merely as a clearing house for the allocation of N.Y.A. funds among the several schools, for some standardization of the hours and rates of pay, for collection of the various reports prepared by the respective deans

in accordance with government requirements, and for certification of the monthly payrolls. Each school was entirely free to decide for itself whether to apply for N.Y.A. funds in behalf of its students, with the sole proviso that, if it did so, full responsibility for administration of its allotment would be accepted by the dean.

This procedure has operated effectively and, after some initial trouble with forms and reports, smoothly. There has been remarkably little pressure from outside the University, in behalf of individual aid applicants; and no interference or suggestions whatever from Federal authorities, as to selection of either the beneficiaries or the projects. In fact, the local and state directors of the National Youth Administration have afforded the University every facility at their disposal. Nevertheless, the rigidity of certain Federal regulations to some extent handicaps effective administration of the program or imposes what would seem to be unreasonable burdens on those responsible for its immediate supervision. No doubt these fixed and elaborate requirements were considered necessary precautions against misuse of the funds; but if the Government cannot trust educational institutions to cooperate sympathetically and wisely with the general aims of such a plan it is not likely to accomplish its objective any more readily through resort to cluttered details of procedure. To insist that an accurate record be kept of the time actually expended on the job by workers is desirable and proper; but what useful purpose can be served by requiring three copies of a monthly time report, showing how many hours each student has worked on each calendar day, is open to question.

More serious criticism may be directed against the rather inflexible regulation of individual earnings. For all except members of the Graduate School these are limited to between \$10 and \$20, with an average not to exceed \$15, monthly. It should be obvious that the purchasing power of a dollar, in terms of student expenses, varies greatly for different institutions and localities; and that such arbitrary limitation therefore produces a superficial, rather than a real, equality of

stipend. Granted that some average dollar ratio to enrollment affords the most practical means of determining college quotas under this plan, it would seem advisable to let each institution, within much wider limits, decide how it can most effectively utilize its proportionate share of the available funds.

Realization of this principle is implied in the additional provisions for "non-professional" graduate students, who may earn up to \$40 a month from N.Y.A. employment. To some extent this distinction may be justified by special proficiency of such workers on difficult research projects; but advanced law and medical students are probably equally well qualified for analogous investigations within their own fields. At Yale these and other professional schools are also in every sense "graduate" schools; and none is really more "professional" in its aims and methods than is the Graduate School itself. There is little reason to suspect that this situation is not equally true of many other universities. Why, then, might they not extend to advanced students of law, forestry, business administration, medicine, engineering, or any other profession whose instruction is pitched at the graduate level, stipends equivalent to those available for Ph.D. candidates? Two Yale students, for example, one enrolled in the Graduate School and the other in the School of Law, have been assigned to perform the same kind of work for the State Division of Child Welfare, in the analysis of case records. Of these, the Graduate School student earns \$40 a month working at the rate of 80 cents an hour; whereas the law student receives only 65 cents an hour, and in order not to exceed a \$20 monthly maximum, is further limited as to the number of working hours.

N.Y.A. regulations at present classify members of these professional schools, so far as the limitation on their monthly earnings is concerned, with undergraduates. As a result, the average hourly rates of pay for such students on N.Y.A. jobs at Yale are below those for undergraduates holding Bursary appointments; while those for members of the Graduate

School are higher. It would seem desirable to permit universities, at their discretion, to arrange a relatively more favorable rate of remuneration, and correspondingly larger monthly stipends, for all advanced students in proportion to their qualifications for specialized or highly exacting performance, rather than to discriminate arbitrarily on a nation-wide basis between candidates for different higher degrees.

It is equally reasonable to give institutions the choice of helping many individuals to a small degree (as measured in dollars) or fewer to an increased extent. The current range of remuneration possible for N.Y.A. appointees (other than "non-professional" graduate students) originated in a large and important state university. The average stipend thus established was probably appropriate to the financial needs of students there; but for many reasons it does not equally meet corresponding conditions at other colleges. Fifteen or twenty dollars additional income a month may at some universities determine whether or not a number of students can continue their education, but at others such a small sum is of critical importance to only a few. Assuming that they will strive to make honest and intelligent use of the student-aid funds available from this source, can the universities not do this most effectively by adapting more flexible regulations appropriately to their respective situations as they deem best?

These criticisms are offered in no hostile spirit, but rather in the hope, if further public grants in aid of needy students are made in the future to carry on the aims of N.Y.A., that these may be administered under conditions which will enhance, and not restrict, their usefulness. Neither the National Youth Administration itself nor the institutions at present participating in its program are in any sense committed, collectively or individually, to its continuance. Opinions as to the value of this experiment and the desirability of prolonging it will doubtless differ. Should no more N.Y.A. allotments be available after June of this year, many students now partially dependent upon them would probably have to drop out of college, with consequent reduction in the enrollments of

some institutions—particularly where such grants have been utilized to encourage new students to enter, rather than to furnish needed additional aid to those already on the ground.

This raises again the old question of whether colleges should distribute their various means of financial assistance among as many students as possible, allowing each just barely enough to hang on by; or should assist a smaller number to a more adequate degree. I suspect that the former policy, pretty generally followed in earlier years, is largely responsible for the feeling that "working one's way" defeats the purpose of education. When used as a substitute, rather than a supplement, to other means of assistance, self-support may well become so excessively burdensome and the problem of achieving even a bare, unsatisfying subsistence may so fully occupy the needy student's attention that he gains precious little for all his effort and self-denial. Considering how acute difficulties of this sort have become in recent years on some campuses, the wisdom of complicating the situation still further by launching even more aid applicants upon the sea of higher education, without resources of their own, is open to question. Conditions in this respect are, of course, not everywhere alike, and for that reason each institution should decide whether such outside funds can be utilized to maximum social and educational advantage as supplementary aid to the needy portion of its normal enrollment, or as a means of increasing the latter. In fact, may not the ultimate significance of such a program, if it is continued, depend more upon the *quality*, rather than upon the *number*, of students aided, and the consequent worth of their contribution to projects of institutional, social, and intellectual merit? If the educational values to be derived from this type of student aid are recognized and stressed, then substantially the same criteria as colleges have established in the selection of scholarship recipients—indications of superior academic and general promise—may well be increasingly accentuated in any future appropriations of state or federal funds for the direct financial relief of students.

In his very cogent arguments mentioned earlier, regarding

the educational distractions induced by self-support activity, President Conant has emphasized the particular disadvantage, or waste, which this may entail for the scholar of distinctly superior capacity, especially in upper-class honors work and in graduate or professional study. Certainly the heavy requirements of a professional program make any substantial amount of such outside work not related to the curriculum especially difficult, if not even dangerous, to undertake. For that reason particular attention, as already explained, has been directed at Yale to coordination of N.Y.A. work for advanced students with their own educational programs. In the Bursary System too, educational aspects of the various positions have received especial consideration in the assignment of outstanding undergraduates, wherever their interests and special qualifications have made that possible. Graduate and Professional students by reason of their special training, greater maturity and seriousness of purpose can be utilized in this way, as faculty aides and research assistants, with particular effectiveness. While this paper discusses the nature of Bursary work more fully than it does that of N.Y.A. assignments, as these have been formulated at Yale, this is only because the former program has been operating there for a longer period and is on a more settled and permanent basis. The philosophy underlying both attempts to make self-support efforts serve a broader purpose than that of mere subsistence, is essentially the same. The plans differ in details of procedure, but both show conclusively that the problem of financial aid need not be set off by itself in a separate compartment, impermeable to educational considerations. The greater an individual's intellectual qualifications are, the more readily can this aim be realized; so that, as indicated earlier, over ninety per cent of the advanced students assisted through N.Y.A. funds are engaged on projects related to their professional training.

At Yale, therefore, correlation of the earning and learning features of such work has received attention in direct proportion to students' demonstrated scholastic ability. It is our

hope thus to associate the real purpose for which they are presumably struggling to obtain an education, with the practical difficulties which so many of our best scholars face, of paying for it. We believe that the principles discussed in this paper offer a sound means of reducing expenses without undue detriment—often indeed with definite gain—to the individuals' educational and total development.

We do not by any means feel that these objectives have been wholly attained, or that the plans for realizing them are all that we might desire. We can scarcely hope, in view of the complex problems involved, that they ever will be. But we do feel that students working under such a program are benefiting by it, in some instances at least, more fully than they might, even if relieved from all necessity for self-support. Work under exacting supervision, required to meet reasonable standards of responsibility, punctuality and performance, in itself offers a pretty good training for life. When correlated with intellectual interests, it can enrich the educational process. With all its admitted imperfections, we feel that this approach to the troublesome problem of student aid holds promise of distinct improvement over previous self-support procedures throughout the long period of their history at Yale. Ideally, at least, it offers rather unique possibilities for enabling the superior student to earn part of his college expenses through work of genuine value and inherent interest for him.

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Non-Intellectual Education

THE training of the emotions has been unduly ignored in our schools because of the stress laid upon the acquisition of knowledge and the development of skill in the acquisition of knowledge. Education should concern itself much more directly than it does with the strength and direction of the desires developed and blocked in children and youth. The life of American youth has been impoverished beyond the point rendered necessary by the limitations in our resources because school people have continued to think in traditional terms of subject-matter content rather than in terms of providing youth with vivid and enriching experience. These are the direct answers which I, personally, am ready to make to the questions posed by the Problems and Plans Committee of the American Council on Education when it launched our sub-committee two years ago. How far the other members of our committee agree with me will be apparent in a few weeks when they have completed the evaluation of the data to appear in the report of our exploratory study. Meantime some of the facts that we have unearthed are presented in this preliminary article to show the sort of material that is influencing our thinking.

A word or two about our premises and methodology may be in order before presenting some of the significant findings. First of all, we decided not to launch experiments during the early part of our exploratory work. We did not wish to be forced to adopt a particular point of view based upon any given body of assumptions. Second, we decided that it was essential to begin our study by informing ourselves and making available to others the major facts now known about the feeling and emotional side of life. This drove us to an examination of the literature of many different sciences, including neurology and endocrinology, all branches of psychology, psychiatry and medicine, aesthetics, anthropology, sociology, criminology, and education. It was a tremendous task and

necessitated requesting additional grants from the Josiah Macy Junior Foundation, which has supported our study. We are still very humble about our knowledge after two years of delving into these fields but on the other hand, we have found much more actual knowledge about non-intellectual life than we had anticipated. The third step in our plans calls for an outline of the more important unsolved problems in the relationship between non-intellectual factors and the aims, methods, material and personnel involved in the educative process. The final phase of our work will be to suggest specific research and experimentation, which may yield needed information about these problems; and to endeavor to secure adequate support for qualified institutions willing to cooperate in undertaking a portion of the coordinated research and experimentation outlined.

The literature has supplied reasonably good answers to a number of our questions, sufficiently good, at any rate, to indicate the direction in which fruitful research is to be undertaken. For example, one of the most important questions that we faced concerned the trainability of emotions. Many of the psychology textbooks imply that emotions are relatively fixed pattern reactions which cannot be modified greatly by training but which can be repressed; that is, prevented from finding free expression. Much of the psychiatric literature deals with the effects of this repression under modern social conditions. It shows that repressed emotions find devious and unhealthy ways of expressing themselves which warp the personality and are the cause of much unhappiness, crime, and physical and mental illness. These views pose a most difficult problem for education. Society will not permit the schools to train children for a free expression of their anger, their fears, their sexual desires, their longing for affection and security. Yet psychiatry shows that these emotions, when pent up, are the basis for many of our serious social problems such as juvenile delinquency, divorce, "nervous breakdowns" and insanity.

Happily, other literature reports experimental findings which give us at least hints about the way out. In the first place, we

discover that emotions are not in-born and eternally fixed patterns of behavior which cannot be trained. Mandel Sherman has shown that specific patterns of emotional behavior cannot be identified in infants even by trained psychologists. Pratt, Nelson, and Sun showed that a given stimulus is not followed invariably by a certain emotional response on the part of infants. Bridges in Canada and Goodenough in the United States have studied the development and evolution of the patterns of emotional behavior in pre-school children and report behavior which varies widely from child to child in similar situations and in the same child from time to time. Bridges claims that specific patterns of emotional behavior gradually take form as a result of experience. She believes that original nature provides only for an undifferentiated excitement in infants and that only as a child appreciates the meaning of situations does he come to show anger, fear, jealousy, and love. Lewin and his students have made various studies of success and failure, of frustration and of level of aspiration in children. They have shown that affective behavior reveals few if any invariable patterns even for a single child. Instead, they claim, emotional behavior is a function of the momentary inter-relationship between the needs and desires of the child and the psychological situation in which he finds himself. All of this material certainly shows, contrary to much current opinion, that emotional behavior is highly trainable and that the persons who control the early environment of children exercise a tremendous influence on later personality manifestations.

We can get still further insight into affective life if we examine more closely two of the terms used in the preceding paragraph. There emotions were said to be a function of the momentary inter-relationship between the needs and desires of the child and the psychological situation in which he finds himself. But what are the needs of a child? Why does he desire the things he does? The psychological literature throws little light on the needs of children. Psychologists have repudiated vague general instincts and turned to the laboratory study of

behavior under controlled conditions; therefore they are now too infrequently concerned with the child in his own functioning world. We have to turn to the psychiatrist and mental hygienist for insight into this. In his turn the psychiatrist is concerned mostly with children in trouble rather than with the normal growing child. (The study of child development is really in its infancy, for not more than half a dozen good centers devoted to this aim exist in our country.) Nevertheless, the psychiatric literature can throw light on the needs of children because many of the problems with which it deals grow out of the failure of life to meet these basic needs.

A study of the psychiatric literature reveals that most of us are almost continuously faced with personality problems. These problems are functional ones which began in early childhood and have persisted throughout our development and maturity. They are concerned with the effectiveness of our behavior in different situations, with our security in earning a livelihood, with holding the love of those dear to us, with the maintenance of social status, with finding vivid, satisfying experiences, and so on. On the basis of these findings we have had the temerity to undertake a listing of the needs of developing children and youth. The list follows: On the physical side, the personality needs to follow a rhythm of general activity and rest; it also needs sexual activity in the broad meaning of this term. On the social side, the personality needs to secure and give affection, needs to accomplish a succession of social belongings, and needs to achieve a sense of a certain amount of likeness to other people. In the matter of functional effectiveness, each personality needs the awareness of a favorable balance between success and failure and the feeling of harmony with the authorities that control physical and social life. To insure integration, each personality needs a continuous and expanding contact with all aspects of reality, needs to be progressively freer to direct his own behavior and to assume social responsibilities and, finally, needs to develop a sense of selfhood based upon the maturing of value concepts. These value concepts determine what the individual wants to

get out of life. They are the basis for his strivings and purposings, his loyalties and his antagonisms. Admittedly this listing is tentative and suggestive rather than proven and authentic, but we hope that it will stimulate research aimed at its refinement. Work of this sort is already being done in the clinics and observation centers directed by Dr. Harold Jones at the University of California and could well be extended to other centers strategically located throughout the country.

The second term for which we seek a meaning is desire. Naturally we believe that most desires are rooted in the needs just outlined, but we recognize that there are almost innumerable pathways by which many needs can be satisfied. How does it come about, then, that individuals cling so tenaciously to certain avenues to the realization of their needs? Why are their desires so specific, so often symbolized in certain things or conditions? The psychological literature seems to afford us an answer to these questions in terms of the manner in which attitudes and value concepts develop. Gordon W. Allport has written an excellent summary of the experimental material relating to attitudes in the new *Handbook of Social Psychology*. He defines an attitude as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related." These directive and dynamic tendencies to behavior may be general or specific, short-lived or relatively enduring, depending upon the sequences of experience which bear upon them. Attitudes represent the predispositions of children toward certain social rôles; they reveal both what one wishes to get out of life and how one expects to get it. In short, the dimensions of affective behavior are determined as much by attitudes as they are by the immediate stimulating situation. Carlyle is said to have remarked that "the best way to increase the quotient of one's happiness is to decrease the denominator of one's desires." This is entirely a matter of attitudes, of the expectancy, hopes and wishes that experience places within us. In a most genuine sense, then, the dimensions of a person's desires and, hence,

of his successes or failures, are set by his attitudes and value concepts.

The rôle of education in supplying experiences on the basis of which a valid sense of values can be built up is most important. Equally important should be the influence of the school in helping the individual to digest and organize out-of-school experiences into wholesome desires and attitudes. Neither of these services can be rendered to growing personalities while the school remains essentially bookish, abstract, and routine. Only as live interests and significant social experiences and problems are discussed in school, only as the school provides definitely for a progressive assumption of responsibilities and for the carrying on of socially useful projects can education perform the function of truly guiding the development of desires, attitudes, and value understanding adapted to current social conditions. Perhaps this can be made clearer by a discussion of the circumstances which now operate to frustrate the personality needs of young people and to warp their attitudes and value concepts.

A study of the literature of mental hygiene and of social psychology reveals certain types of situations as characteristically likely to produce emotional upsets because they thwart some of the personality needs mentioned above. The rejected child—that is, the child who is unwanted or unloved by his parents—is in a most difficult situation. The child who is very tall or very short, very fat or very “skinny,” who has marked stigmata such as crossed-eyes, birthmarks, many skin blemishes or markedly irregular features, may be tortured every day in the presence of his more fortunate mates from whom he feels irrevocably different. Children who lack mental gifts are embarrassed continually by failure to do what they see their classmates accomplishing. Children who are lame, or deaf, have bad eyes, or are sickly cannot compete on equal terms in many of the extra-curricular and other activities of the school. Then there are many young people who aspire to accomplishments and experiences which they are not fitted by hereditary gift or home background to attain. A re-evaluation

of their desires is often most difficult for them to accomplish without sympathetic guidance. Again, children vary markedly in their rate of maturing, so that very small and bright children, who are quite advanced intellectually, may find themselves surrounded in school by much older, physically and socially more mature companions with whom they do not fit in well. Family rivalries are another frequent source of emotional tension as the struggle for leadership, love, and attention goes on between the various family members. Still other children suffer from over-protection, coddling, and spoiling, as parents prevent them from having a true experience of reality or try to compensate for the deprivations of their own childhood by heaping attention and care on their children. The emotion betrayed by adults in connection with minor sex episodes frequently endows this area with special interest and curiosity in the minds of children and gives rise to an unhealthy and continuing preoccupation with sex. In the same way, children often catch from older persons the habit of worrying, of being afraid of certain things, of being fussy, suspicious or antagonistic, of being jealous or envious or superstitious. These are called cases of psychic contagion. Finally, it should be noted that focal infections and various childhood diseases can upset the normal body functions to the point where emotional life will be distorted and unbalanced. Probably many other situations could be described in which certain personality needs are frustrated and developing children become emotionally upset but surely the foregoing illustrate sufficiently the variety and significance of these needs in life.

It is necessary to recognize one additional group of facts bearing upon the warped attitudes which grow out of frustrated personality needs; I refer to the social causations of many pathological conditions. These socially-caused conditions are quite beyond the control of any teacher, psychiatrist or parent. They grow out of prejudices, traditions, institutions, and social changes, but they remain a part of the psychological situations in which many school children find themselves. For this reason they cannot be ignored by persons

interested in the factors which influence the emotional maturing of our youth. Science is working a tremendous revolution in our lives; it is changing quite completely our methods and affectiveness in industrial and agricultural production, in transportation and communication and in home life. One of the results of this revolution is a rapid increase in the tempo of life, in the amount and kinds of stimulation to which all of us are subjected. While this may greatly enrich the lives of some, it doubtless taxes to the limit the adjustive capacities of others of unstable temperament or underprivileged opportunity. Modern industry, coupled with modern advertising, has greatly increased our conscious wants, and these can be met only by increased earnings because we must always buy to meet these wants. The trend to urbanization and the necessity for frequent family moves to find employment work toward a feeling of uprootedness and against the establishment of family traditions and family position in the community. In some ways this frees the individual from the shackles of convention and custom, but it also removes valuable props and steadying influences from the lives of emotionally unstable and dependent personalities. The success of the big-brother movement in adjusting many juvenile delinquents attest to the need of youth for community standing and personal friendships with older people outside the family. The insecurity of many families due to unemployment, seasonality of occupation, the development of machinery to replace labor, the growing intensity of the depression phase of the business cycle, the undependability of investments and the high cost of medical care provides countless opportunity for psychic contagion engendering anxiety and warped value attitudes in youth. As the population increases and industrial methods and machinery improve, competition is growing keener, with the inevitable result that a majority of the population must be frustrated in many of its wants while the minority wins. This spirit of competition, then, inevitably urges the underprivileged to seek questionable methods of attaining his ends or unwholesome compensations for unsatisfied desires. Perhaps the most effective influences

upon the attitudes of youth, and hence upon their characters, are the methods used by successful business men, politicians, and employers. If capital deals ruthlessly with labor, if business and politics are shot through with graft and corruption, then the school can do little to establish a different ethics in the minds of youth. The latter inevitably will believe life, success as they see it, rather than the precepts presented in their day or Sunday schools. Loyalty from young employees can scarcely be expected by corporations who exploit the parents of these youth or who ignore the welfare of the families of their employees. Slums and marginal areas in cities have likewise been shown to be foci of psychic infection leading directly to delinquency and crime. The school in a delinquent area is quite helpless to offset the myriad influences that warp the value concepts of youth. Indeed these sources of emotional and moral contagion are so powerful that nearness to the heart of such an area has been shown to be more important in leading to delinquency than the intellectual or the temperamental limitations of the young people involved. Finally, the United States has ethnic problems of great seriousness. Over one person out of ten is a Negro, denied for his whole life certain privileges and opportunities guaranteed to all white people. Only one shade less severe are the discriminations suffered by the members of other racial, religious and cultural groups in various localities. What does our society expect of an "emotionally mature" Negro? What value concepts mark an "adjusted" Jew, Italian, Slav, Indian or Japanese in some of the communities where they are plentiful? Can we propose the same criteria for judging their emotional poise, their attitudes and value concepts as we propose for the Anglo-Saxon Protestant whose forebears wrote that all men have "certain inalienable rights?"

Anyone who looks realistically at the causation of emotion in school children will see that all of the social conditions mentioned above are parts of the psychological situations which give rise to unhappiness and thwarting. There are many limitations upon the power of the school to change these con-

ditions so as to facilitate the adjustment of children. Evidently, then, there is an obligation on the school to encourage fortitude among those whose lot cannot be immediately improved. Naturally the school dare not make itself the agent of further social injustice by ignoring the development of wholesome social purposes designed to improve our society, but it may be of great service to many underprivileged children if it can foster the growth of appreciations of aesthetic experiences that are generally available, if it can develop expressive capacities so that emotional tensions can be relieved through instrumental or vocal music, dancing, the graphic arts, dramatics or raising flowers. Dr. Langfeld has justly pointed out that aesthetic expression and appreciation is not a full remedy for emotional conflicts and thwartings. Their aid is temporary and not always certain, but the school certainly owes it to underprivileged children of all groups to enrich their lives in any manner possible, while at the same time it deals honestly with contemporary social problems in a manner that may ultimately lead to their solution.

Of course it must not be inferred from the preceding paragraph that aesthetics are to be used by the schools chiefly to compensate unfortunate children for their difficulties. The refining of the sensitivities of our whole population, the enriching of their appreciation of the genuinely beautiful, the maturing of their personal and social value concepts through the aesthetic interpretation of cultural changes, and the development of the power of individuals to share their aesthetic experiences with others through artistic activities remain a tremendous and relatively undeveloped responsibility of the public schools. Science is just beginning to invade this field with research into individual differences in artistic abilities, into the developmental levels and sequences in which these talents appear and into the experience background that nourishes creative imagination. Meantime the schools have the obligation to pioneer with experimental programs in aesthetics. Far from looking at such programs as frills, we are warned by the high incidence of nervous breakdowns, functional physical illness, juvenile de-

linquency, divorce, and unhappiness to consider the training of emotional expression as among the major objectives of education.

In conclusion, it should be said that the committee has been astonished at the amount of existing knowledge about the non-intellectual side of personality. In the face of this knowledge it will be very discouraging if a great deal of needed educational experimentation cannot be stimulated in the near future. We know that the patterns of emotional behavior are highly trainable. We have discovered that unpleasant emotions grow out of the frustration of some of the basic personality needs. We believe that desires and attitudes are developed as a result of the experiences which attended attempts by the individual to satisfy these needs. We find many situations which thwart the desires of children and are therefore the occasion for mental conflict, gnawing anxiety or strong anger or fear. Some of these situations are remediable by education, others originate in social processes and traditions which must inevitably warp the attitudes and personalities of school children. The least that schools can do is to recognize these situations and adapt their programs to whatever needs the unfortunate children may show. Beyond this the school has a great obligation to enrich the non-intellectual life of the whole population by enriching the aesthetic experience and appreciation of everyone. There is enough opportunity and challenge in the task of bringing children to emotional as well as intellectual maturity to occupy the best efforts of our educators for many years!

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The Control of Higher Education in America

THE control of American colleges and universities has typically been placed in the hands of boards of trustees. Institutional charters granted by the states vary widely with respect to powers granted to such controlling bodies; but in general these bodies have complete legal responsibility for the welfare of the institutions which they represent. Necessarily, therefore, such boards of control are invested with extensive powers in determining the character of the educational offerings and the management of higher institutions. The following quotation from the charter of Knox College is an example of the complete control which a board of trustees may have over all matters pertaining to an institution.

The Trustees shall have power from time to time to prescribe and regulate the course of study to be pursued in said College and in the preparatory departments attached thereto, to fix the rate of tuition, room rent and other College expenses, to appoint instructors; professors, and such other officers and agents as may be needed in managing the concerns of the institution, to define their powers, duties, and employments, to fix their compensation, to displace and remove either of the instructors, officers or agents, as they may deem the interests of the College require; to fill all vacancies among the instructors, officers and agents, to erect necessary buildings, to purchase books, chemical and philosophical apparatus, and other suitable means of instruction, to establish and regulate the proposed system of manual labor, in the way which they shall deem best adapted to promote the object of said corporation, to make rules for the general management of the affairs of the College; and for the regulation of the conduct of the students, and to establish when they shall deem it expedient, and the means can be procured, professorships of law and medicine.¹

Charters of higher institutions also generally determine the

¹Edward C. Elliott and M. M. Chambers, *Charters and Basic Laws of Selected American Universities and Colleges*, p. 285. New York: Carnegie Foundation, 1934.

size of boards of trustees. Studies of the size of controlling boards unanimously agree that the number of persons in such bodies is a small percentage of the constituency represented. The average size of boards in 1930 in twenty institutions studied by the writer was 24. The size of boards in 51 colleges and universities studied by Chambers and Elliott was 21.² Ashbrook found the medium size of boards of control of Protestant and private non-denominational institutions to be 24 and 23, respectively.³

Charters of higher institutions also customarily determine the manner of choosing members of the board of trustees. The most common methods for selecting board members are cooptation, election by alumni, election by church bodies, appointment by the governor with the consent or approval of the senate, appointment by governor, election by the people of the state. Boards of private institutions are customarily selected by the three former methods, and boards of public institutions by the three latter. By far the greater proportion of private institutions are governed by boards selected by cooptation. Twenty-nine, or 88 per cent, of the 33 private institutions studied by Chambers and Elliott had boards composed predominantly of members selected by cooptation.

The foregoing facts make it clear that private institutions of higher education in America are governed by small, self-perpetuating bodies with wide and socially important powers. Public institutions are customarily controlled by smaller boards than are private colleges and universities, but, not being self-perpetuating, they are likely to be more responsive to the wishes of their constituencies.

A recognition of the fact that higher education is controlled by small groups led the writer to undertake a study of individuals who have since 1860 constituted these boards of control. Specifically, the attempt has been made to determine changing trends in the social composition of such bodies.

² *Op. cit.*, p. xi.

³ *Journal of Higher Education*, III (January, 1932).

One indication of social status is the profession or vocation which the individual follows. While this is not an infallible criterion, it does provide a general indication of the position an individual holds in society. Therefore, a comparison of the percentage of the various vocations represented in boards of trustees ought to reveal approximately their social representativeness.

Because of the large amount of work involved in locating historical materials bearing on the vocations of trustees who held office as early as 1860, the number of institutions had to be limited to twenty. In order to insure some measure of representativeness, institutions of various sizes and of different geographical location were selected. The following four groups of institutions were chosen: Five, enrolling approximately 1,000 students or fewer in 1930, located in eastern United States; five, enrolling approximately 1,000 students or fewer in 1930, located in western United States; five, enrolling 2,000 students or more in 1930, in eastern United States; and five state universities located in the middle west.⁴ Lists of trustees were secured from the annual catalogues of these twenty institutions at ten-year intervals. It was assumed that no significant changes in personnel would have occurred within periods of this length. Many sources were canvassed in the search for information concerning the vocations of board members. Several institutions have published short biographical accounts of all trustees. Similar descriptive material was found in many alumni catalogues for those trustees who were graduates of the institutions with which they were associated. Since 1900 many trustees of these institutions were prominent enough to be listed in *Who's Who in America*.

⁴Small Eastern: Williams, Lafayette, Amherst, Wesleyan, and Hamilton. Small Western: Lawrence, Carleton, Beloit, Wabash, and Knox. Large Eastern: Yale, Pennsylvania, Cornell, Princeton, Dartmouth. State Universities: Nebraska, Missouri, Minnesota, Iowa, Michigan. Because of the inaccessibility of source material it was necessary to include three institutions founded later than 1860. They are Carleton, 1866; Nebraska, 1871; Cornell, 1868.

Institutional, state, county, and municipal histories provided rich sources. City directories were also used. And in some instances the librarian, or secretary of the board, supplied valuable information. Board members whose vocations are unknown are so designated. They constitute a class so small as hardly to affect the results of the investigation. The total number of persons included in the study was about 2,500.

Limitation of space makes impossible the listing of vocations included in the various categories found in Tables I and II. However, great caution was exercised to see that the individual was properly classified according to the evidence at hand.

In Table I are presented the number and percentage of trustees in 15 private institutions who followed various vocations in selected years from 1860 to 1930. This table reveals several striking facts concerning the changing social composition of boards of trustees in these institutions. First, approximately two-fifths of these board members were clergymen in 1860. This percentage decreased steadily to 7.2 in 1930. The large proportion of clergymen in the early years is understandable when one realizes the purpose for which early institutions of higher learning were established. Tewksbury, who investigated the social forces behind the development of higher education in America before the Civil War, states:

The movement for the founding of colleges in America before the Civil War was identified with the rise and growth of religious denominations in this country, and thus it came to partake of the dominant religious character of the formative period of our history and reflect the motives and interests of a religious era. It is a well known fact that our colonial colleges were largely religious in origin and character, but it is not so well understood that, with the exception of a few state universities, practically all the colleges founded between the Revolution and the Civil War were organized, supported, and in most cases controlled by religious interests. Thus it may be truly said that the "denominational college" was the

prevailing American college of the middle period of our history, as it was of the colonial period.⁵

It is natural, therefore, that boards of trustees in the decades before 1860 should have been composed preponderantly of clergymen. Moreover, since these early colleges had as their chief purpose the propagation of the doctrines of the groups which established them, it was reasonable to grant boards of control extensive powers in the determination of the character of the offerings and staffs of their institutions. But social forces have changed and, with them, the demands upon colleges and universities. Higher education does not now provide only a professional and religious training for a small group of people. It provides a multitude of curricula which are designed to supply the needs of society at large. The influence of these new social forces is reflected in the membership of boards of trustees. Veblen describes the changes that have occurred in the following words:

For a generation past, while the American universities have been coming into line as seminaries of the higher learning, there has gone on a wide-reaching substitution of laymen in the place of clergymen on the governing boards. . . . This secularization is entirely consonant with the prevailing drift of sentiment in the community at large, as is shown by the uniform and uncritical approval with which it is regarded. The substitution is a substitution of business men and politicians; which amounts to saying that it is a substitution of business men. So that the discretionary control in matters of university policy now rests finally in the hands of business men.⁶

The figures in Table I support Veblen's empirical generalization that there is an increasing percentage of business men and bankers holding membership in boards of trustees of private institutions. In 1860 the percentage of bankers in boards of these 15 institutions was only 4.6, while in 1930 it was about 20. The proportion of business men has increased from

⁵ Donald G. Tewksbury, *The Founding of American Colleges and Universities before the Civil War*, pp. 55-56. New York: Teachers College, 1932.

⁶ Thorstein Veblen, *The Higher Learning in America*, pp. 63-64. New York: B. W. Huebsch, 1918.

TABLE I

Vocations of Members of Boards of Trustees in Fifteen Private Institutions of Higher Education in Selected Years from 1860 to 1930

Year.....	1860- 1861	1870- 1871	1880- 1881	1890- 1891	1900- 1901	1910- 1911	1920- 1921	1930- 1931
Number of cases....	281	323	354	355	374	388	394	429
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Clergymen.....	39.1	34.4	33.3	28.5	23.0	16.5	10.4	7.2
Business men.....	22.8	25.4	25.4	24.8	25.7	25.0	27.2	31.9
Bankers.....	4.6	8.4	8.8	11.5	12.8	17.8	16.0	20.3
Lawyers.....	20.6	19.8	21.8	23.7	25.7	25.5	26.9	21.4
Educators.....	5.0	6.8	6.2	7.6	8.0	9.3	11.4	10.0
Physicians.....	4.6	3.1	2.3	3.1	3.2	3.1	4.3	4.4
Engineers.....	.7	.6	.6	....	1.1	1.8	2.3	3.5
Farmers.....	2.1	1.2	.8	.6	.5	1.0	.5	.2
Housewives.....	....	....	.8	.3	....	....	1.0	.9
Unknown.....	.4	.3	....	....	....	....	....	....
Business men and Bankers.....	27.4	33.8	34.2	36.3	38.5	42.8	43.2	52.2
Business men, Bank- ers and Lawyers...	48.0	53.6	56.0	60.0	64.2	68.3	70.1	73.6

slightly more than one-fifth in 1860 to slightly less than one-third in 1930. The percentage of lawyers has fluctuated during the seventy years between 19.8 and 26.9, with no discernible trend. The percentage of educators has increased from 5.0 in 1860 to 10.0 in 1930, while the proportion of all other vocations combined has been relatively small. Physicians, however, have been somewhat better represented recently than the others.

In Table I figures are also presented which combine percentages of bankers and business men, and also the percentages of bankers, business men, and lawyers. It is interesting to observe that the proportion of bankers and business men has increased from approximately one-fourth in 1860 to about one-half in 1930. When the figures for lawyers are included it is evident that in 1860 approximately one-half of board members belonged in this category and in 1930 the percentage had risen to 73.6.

TABLE II

Vocations of Members of Boards of Trustees in Five State Institutions of Higher Education in Selected Years from 1860 to 1930

Year.....	1860- 1861	1870- 1871	1880- 1881	1890- 1891	1900- 1901	1910- 1911	1920- 1921	1930- 1931
Number of cases....	46	62	46	48	48	45	44	46
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Business men.....	23.9	22.6	28.3	20.8	27.1	35.6	34.1	23.9
Lawyers.....	39.1	33.9	28.3	39.6	37.5	24.4	27.3	30.4
Bankers.....	4.4	3.2	13.0	12.5	12.5	22.2	18.2	13.0
Farmers.....	15.2	6.5	4.3	6.3	....	2.2	4.6	8.7
Educators.....	8.7	16.1	13.0	14.6	12.5	6.7	6.8	4.4
Physicians.....	2.1	6.5	8.7	6.3	2.1	8.9	9.1	10.9
Clergymen.....	4.4	11.3	4.3	....	6.3	....	....	2.2
Housewives.....	....	....	....	....	....	....	....	6.5
Engineers.....	2.2	....	....	....	2.1	....	....	....
Business men and Bankers.....	28.3	25.8	41.3	33.3	39.6	57.8	52.3	36.9
Business men, Bank- ers and Lawyers...	67.4	59.7	69.6	72.9	77.1	82.2	79.6	67.3

The figures in Table II, referring to State institutions, present several striking contrasts to those in Table I. Only a small percentage of clergymen have ever served as board members in state universities, even in the early period. This difference between private and public institutions is to be explained by their origins and purposes. On the other hand, farmers, physicians, and lawyers, especially the latter, in the early years have been more largely represented in state boards than in those of private colleges and universities.

The fact that business men and bankers combined compose a smaller percentage of the membership of boards in state institutions in 1930 is probably a fortuitous fluctuation due to the small number of cases involved. When business men, bankers, and lawyers are considered as a group, it appears that they have consistently from 1860 to 1930 accounted for a somewhat larger percentage of places on boards of trustees in state institutions than the same group has in 15 private institutions.

Even as early as 1910 more than four-fifths of the trustees in these state universities were selected from the fields of business, banking, or law.

The one arresting fact revealed by Tables I and II is that in so far as the institutions selected represent other similar institutions, the control of higher education in America, both public and private, has been placed in the hands of a small group of the population, namely, financiers and business men. From two-thirds to three-fourths of the persons on these boards in recent decades have been selected from this group. It is fair to include the lawyers among this group because the biographical material examined indicates that, especially in recent years, a majority of these lawyers have been associated with large corporations; indeed, in many instances they have been presidents or directors of such organizations.

This concentration of control in the hands of a narrowly selected group of persons is probably not so serious in the case of state institutions as in the case of private institutions because the former are operated according to constitutional and statutory regulations, both of which can be modified by the constituency with relative ease. But private institutions usually operate under a fixed charter, or articles of incorporation, which are alterable only upon the agreement of the board itself. This condition makes change within the board an extremely slow process in institutions where a majority is still chosen by cooptation. However, a comparison of figures in the two tables reveals the fact that the controlling bodies of higher institutions have been selected from the same classes regardless of the manner of selection.

It is a difficult task to determine whether the condition revealed by the facts presented is desirable or not. No definite evidence can be adduced to prove the point one way or the other. It is a subject, however, which should engage the consideration of thoughtful men both inside and outside of the teaching profession. Many men of learning have given thought to the problem. Kirkpatrick, Cattell, Veblen, and Sinclair have addressed themselves with particular vigor to a

study of this problem. They have been disturbed by the increasing predominance of business men in boards of trustees and have spoken in severe criticism of this condition.

Their chief criticisms are as follows: Persons not intimately in contact with academic work are incapable of appreciating its essential character and purposes. In most instances a majority of the trustees of higher institutions reside at a distance from the academic community. Moreover, meetings of the board are usually held only two or three times a year. Furthermore, men of affairs are so engaged with their own private enterprises that they are able to give scant time to a serious consideration of the problems of the institution they control. The result is that decisions concerning institutional policy frequently represent judgments based on incomplete information. In some instances a large proportion of the board merely accepts the recommendations of a small executive committee. Although this practice may result in more efficient management, it also increases the concentration of control.

It is argued, too, that a self-perpetuating board represents a very narrow selection of the whole membership of society. This statement is borne out by the figures presented in this study. The critics of this situation point out that social institutions of such basic importance as colleges and universities are, should not be controlled by a minority group. Minority groups have vested interests which they consciously or unconsciously advance and protect. They are incapable of viewing and judging objectively institutional policies and practices which conflict with these interests. This weakness which board members have in common with most other human beings frequently causes them to come into conflict with the professional members of the academic community. Violation of the principles of academic freedom and an undesirable suppression or distortion of the truth are too often the consequence of such conflict. The result is the emasculation of higher learning.

It is contended, further, that educators should be more adequately represented in boards of trustees of higher institutions. Some believe that full control should be placed in the

hands of educators; others, that the proportion of educators should be increased. Kirkpatrick points out that the European tradition of professional control of universities was followed in the establishment of early American colleges and universities, but subsequent revision of existing charters and a change in policy with respect to the granting of charters by states, have placed control in a lay body. He describes this change of control in the following words:

There has thus been a great change in the character of the legal bodies that control our institutions of higher learning. This change has come about gradually, without design and almost without observation. But the difference between the professional resident corporations of the first British institutions planted in the American colonies and the non-resident and non-professional bodies which now constitute the academic corporations would be difficult to exaggerate. Moreover, as we have noticed, the various powers belonging to an academic institution, once exercised by different groups in the academic community and its supporters, have quite generally, been gathered into the hands of the academic corporation itself. Such control as remains is exercised by the state and not by patrons or private groups or parties. Most noticeable of all, is the disappearance of the teaching group as a legal and authoritative person.⁷

Cattell suggests that the government of private universities be placed in the hands of a corporation of teachers, alumni, and citizens.

In the case of the private universities, it would apparently be wise to have a large corporation consisting of the professors and other officers of the university, the alumni who maintain their interest in the institution and members of the community who ally themselves with it. This corporation—or perhaps better the three groups of which it is composed—should elect the trustees. Thus there might be a board of nine trustees, one being elected annually for a three-year period by each of the three divisions of the corporation.⁸

⁷ J. E. Kirkpatrick, *Academic Organization and Control*, p. 177. Ohio: Antioch Press, 1931.

⁸ J. McKeen Cattell, *University Control*, pp. 28-29. New York: Science Press, 1913.

Although the figures in Tables I and II show a slight increase in the percentages of educators on boards of control in recent years, the small percentages even in recent years indicate that educators have never been numerous enough to be influential in the determination of policy. Moreover, presidents who held membership on the boards of these institutions were included in the figures as educators. While these men have usually been drawn from the academic body, the close relationship existing between them and the board can hardly permit them to be strong representatives of the academic group. Consequently, their influence is smaller than the figures might imply.

Those persons who believe that the present composition of boards of trustees of higher institutions is satisfactory offer the following arguments in support of their opinion:

Colleges and universities have become large corporations in recent years. Attendance in these institutions has increased from 121,942 in 1890 to 924,275 in 1930.⁹ Paralleling this growth in numbers of students has come an increase in cost and size of physical plant, increase in complexity and size of staff, and an increase in endowment funds. Certain phases of the management of institutions of such size require a type of experience possessed only by men of affairs, those who have directed similar enterprises in the business world. Educators, on the other hand, only infrequently have had sufficient experience in the business world to prepare them for responsibility of this sort. Moreover, the character of the academic life is such that the productive scholar probably should have neither the time nor inclination to assume managerial duties.

It is argued, too, that institutions of higher learning should be responsive to the needs of society. Those persons best able to interpret new educational demands are persons in immediate and intimate contact with society. Constituencies of higher institutions are presumably represented by trustees. The

⁹ Aubrey A. Douglass, *The American School System*, p. 4. New York: Farrar & Rinehart, 1934.

function of the board is to interpret the social and educational demands of the constituency to the academic world and to set up the machinery for providing suitable types of training. It has been argued that academic groups do not do these things well. They have in the past been unusually resistant to changes in the curriculum. Even such respectable subjects of study as Chemistry, English, and History, were admitted to the curriculum of higher institutions only after considerable controversy. In regard to social change, therefore, it is pointed out by proponents of the present system of control that the academic body is more conservative than the board of trustees.

The present composition of boards is desirable, however, for another important reason. Large funds are required to operate colleges and universities. Those institutions which do not receive public money are dependent to a large extent upon philanthropy for support. The names of wealthy men who have made large contributions to colleges and universities during the past twenty-five or thirty years are so well known that they need not be repeated here. Many of them were trustees of these institutions, and many of those who were not, were influenced by wealthy friends on boards of trustees to contribute to the support of education. These men have been responsible in some measure for the provision of more adequate facilities to meet the rapid increase in student registration since the World War. In thus supporting private higher education these men have made valuable social contributions. Not only the sons and daughters of the wealthy class have been the beneficiaries of their generosity, for even in the large eastern schools of aristocratic tradition many students are found who represent the middle and lower social strata. It is argued, therefore, that men of means because of their financial aid to education have properly been given a controlling position in institutions of higher learning.

Although there is an element of truth in all the arguments advanced on either side, it is the writer's opinion that many of them miss the one fundamental problem to be considered,

the solution of which eliminates most of the others. The question is this: Do present boards of trustees whatever their composition observe and protect the established principles of academic freedom? That is, are the members of the academic community permitted to investigate, report upon, and discuss any subject which interests them regardless of the fact that the results of such an investigation may suggest changes in the social order with which the members of the board have no sympathy, or which they may even vigorously oppose privately. If institutions are managed in a manner that guarantees to the faculty freedom from the restraint of all partisan and biased social groups, whether within the board or in society at large, then the management is desirable and should be continued. If, on the other hand, the present control of higher education is responsible for intellectual dissembling and the suppression of truth, it should be abandoned.

The greatest problems facing America today are economic and sociological. In these fields scientifically verified knowledge is still all too meager. Much original and unorthodox thinking, as well as extensive researches, are needed before present social problems can be intelligently met. The universities and colleges of America must take a leading part in the solution of these problems. Now more than ever intellectual enterprise must be untrammelled.

Yet it is precisely within the social sciences that conflict between trustees and faculty frequently arises. Each year a number of violations of academic freedom are brought to the attention of The American Association of University Professors. Investigation of these cases shows that instructors have been released most frequently in recent years because they expressed opinions which conflicted with business interests. To be sure, governing boards of some higher institutions have distinguished records with respect to the preservation of academic freedom, but far too few can claim this distinction.

The answer to the question, "Shall the present control in higher education in America be continued?" is clear. If the present control in the main permits and encourages the un-

restrained pursuit of the truth then it should be continued. If, on the other hand, trustees permit their personal interests and social philosophy to pervert the proper purposes of American colleges and universities, then the character of such boards must be altered. Recently, state officials investigated a large institution in the East in which violations of academic freedom have been flagrant. The statement of the governor of this state that unless the board policies are changed within the year the institution will receive no further state support is evidence that some members of society are keenly aware of the problem raised in this study and recognize its solution. It is hoped that this statement may assist in directing the thought of others to this important social problem.

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*Graduate Fellow, Department of Education,
The University of Chicago.*

The Cooperative Study of Secondary School Standards

I. ORGANIZATION AND PURPOSE

1. Organization

The Cooperative Study of Secondary School Standards, as now organized, functions through delegated representatives of the six regional associations of colleges and secondary schools in the United States. The general plan of organization is best shown in compact form on the "Organization Chart," Figure I. All committee members, special advisers, and representatives of advisory agencies serve without salary, the only salaried employees being the members of the staff of the central executive office at Washington. The present personnel of the constituent committees, of the representatives of advisory agencies, and of the central office staff are given below:

Membership of the General Committee

(* indicates membership also on the Executive Committee)

(** indicates membership also on the Administrative Committee)

New England Association

HOWARD CONANT, Holyoke High School, Holyoke, Massachusetts.

*JESSE B. DAVIS, Boston University, Boston, Massachusetts.

ARTHUR W. LOWE, Portland High School, Portland, Maine.

Middle States Association

**E. D. GRIZZELL, University of Pennsylvania, Philadelphia, Penn.

*R. M. GUMMERE, Harvard University, Cambridge, Massachusetts.

W. M. LEWIS, Lafayette College, Easton, Pennsylvania.

G. W. McCLELLAND, University of Pennsylvania, Philadelphia, Penn.

W. A. WETZEL, Trenton Central High School, Trenton, New Jersey.

North Central Association

**G. E. CARROTHERS, University of Michigan, Ann Arbor, Michigan.

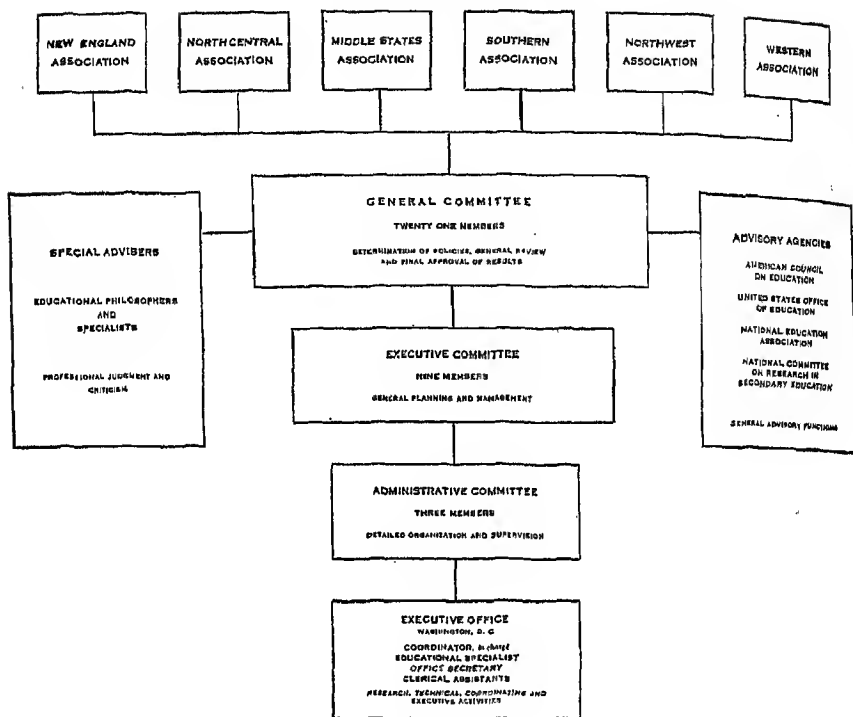
C. G. F. FRANZEN, Indiana University, Bloomington, Indiana.

*J. T. GILES, State Dept. of Education, Madison, Wisconsin.

E. E. MORLEY, Cleveland Heights High School, Cleveland, Ohio.

RAYMOND OSBORNE, F. W. Parker High School, Chicago, Illinois.

COOPERATIVE STUDY OF SECONDARY SCHOOL STANDARDS
ORGANIZATION CHART



Southern Association

- *J. H. HIGHSMITH, State Dept. of Education, Raleigh, North Carolina.
- *JOSEPH ROEMER, Peabody College for Teachers, Nashville, Tennessee.
- W. R. SMITHEY, University of Virginia, Charlottesville, Virginia.
- S. B. TINSLEY, Girls' High School, Louisville, Kentucky.
- C. R. WILCOX, Darlington School, Rome, Georgia.

Northwest Association

- *H. M. HART, Lewis and Clark High School, Spokane, Washington.
- M. P. MOB, Montana Education Association, Helena, Montana.

Western Association

- *W. M. PROCTOR, Stanford University, California.

Advisory Members

- E. J. ASHBAUGH, Miami University, Oxford, Ohio.
National Committee on Research in Secondary Education.
- D. H. GARDNER, University of Akron, Akron, Ohio.
Committee on Revision of Standards, Commission on Higher Institutions of the North Central Association.
- CARL A. JESSEN, U. S. Office of Education, Washington, D. C.
United States Office of Education.
- S. D. SHANKLAND, National Education Association, Washington, D. C.
National Education Association.
- J. W. STUDEBAKER, Commissioner of Education, Washington, D. C.
United States Office of Education.
- GEORGE F. ZOOK, American Council on Education, Washington, D. C.
American Council on Education.

Staff of the Executive Office

- WALTER C. EELLS, *Coordinator.*
- M. L. ALTSTETTER, *Educational Specialist.*
- LOUISE MAHONE, *Secretary.*

Officers of the General Committee

- G. E. CARROTHERS, *Chairman.*
- CARL A. JESSEN, *Secretary.*

Officers of the Executive Committee

- E. D. GRIZZELL, *Chairman.*
- CARL A. JESSEN, *Secretary.*

2. Purpose of the Study

All who have had experience with accrediting organizations realize that they have been exceedingly valuable and that they have stimulated to a marked degree the improvement of secondary education in the United States during the past third of a century. Increasing experience with the standards as established and administered by these associations, however, has led to increasing dissatisfaction with them and to a growing conviction that extensive revision is necessary. The following are some of the outstanding limitations of accreditation procedures:

- a. They have tended to become mechanical rather than vital—to emphasize the shadow rather than substance—to stress the letter and overlook the spirit of education.
- b. They have tended to become rigid, lacking the desirable flexibility to make them suited to different types and sizes of schools with varied problems and objectives.
- c. They have tended to become deadening rather than stimulating—to encourage uniformity rather than diversity—to retard rather than to promote pioneering and adventurous experimentation.
- d. They have failed to take into account some of the more modern viewpoints in education, particularly as concerns the marked individual differences which are known to exist among pupils and the desirability of developing educational programs to meet their individual needs.
- e. They have been narrowly academic rather than broadly comprehensive. They have been developed too much in terms of college entrance without sufficient attention to the needs of the many pupils who probably never will enter institutions of higher education.
- f. The standards and the methods by which they have been applied have been based, to a considerable extent, on untested assumptions and opinions without sufficient evaluation by scientific procedures.

With a view to clarifying the specific issues involved, the Committee has formulated and approved the four following definite questions as a statement of its objectives in the Study:

1. What are the characteristics of a good secondary school?
2. What practicable means and methods may be employed to evaluate the effectiveness of a school in terms of its objectives?
3. By what means and processes does a good school develop into a better one?
4. How can regional associations stimulate secondary schools to continuous growth?

3. *Phases of the Study*

In order to answer satisfactorily the foregoing questions, the Cooperative Study recognizes that three more or less distinct phases of its work are necessary. These are:

1. The formulation of criteria and the development of procedures for their application in the evaluation and stimulation of secondary schools.
(The work accomplished from August, 1933, to June, 1936.)
2. A period of experimentation for the application and validation of the criteria and procedures in a large group of representative secondary schools in all parts of the United States.
(The work planned for July, 1936, to June, 1937.)

3. Analysis and evaluation of the experimental data, followed by the preparation of recommended practices for consideration and adaptation to the needs of the several regional associations in their respective areas. (The work planned for July, 1937, to June, 1938.)

II. HISTORY OF THE STUDY

1. *Preliminary Stages*

Although not formally organized until the summer of 1933, the origin of the Cooperative Study of Secondary School Standards dates back five years earlier. A very brief summary of some of the preliminary stages is given below:

February, 1928—Plan for a study of secondary schools holding membership in regional associations developed by the National Committee on Research in Secondary Education. Action delayed, due to National Survey of Secondary Education.

November, 1931—*Atlantic City*. Plan for a cooperative study revived at the annual meeting of the Middle States Association. Appointment of a commission representing different regional associations proposed. Action deferred by economic conditions.

February, 1932—*Washington, D. C.* Resolution recommending a "cooperative study of secondary school standards" adopted at the fifth annual meeting of the National Association of Officers of Regional Associations, and referred to the various Associations for official action.

April, 1933—*Chicago*. The North Central Association appointed its twenty state chairmen as a committee on study of standards for accrediting secondary schools. Designation of a sub-committee of five as an Executive Committee named as representatives on a possible cooperating national committee. Small sum of money appropriated for initiation of study. Meanwhile favorable responses received to the resolution of February, 1932, from all but one of the regional associations.

July 3, 1933—*Chicago*. The Committee of Five of the North Central Association met with representatives of the Southern and Middle States Associations in an all-day meeting. Dr. George F. Zook, then United States Commissioner of Education elect, was present by invitation. Decision to ask Dr. Zook to call a conference at Washington representing all six of the regional associations.

2. *Organization and Progress to June 30, 1935*

The conference mentioned above was held, on call of Commissioner Zook, at the United States Office of Education, August 18 and 19, 1933. Four associations were represented

by 19 delegates. Dr. G. E. Carrothers was made chairman, and Carl A. Jensen secretary. Ten specific proposals were formulated, including ones for cooperation and financial support by some national educational foundation. The General Committee of Twenty-One and the Executive Committee of Nine (the present organization) was also provided for at this meeting.

Further progress of the study prior to the current year may be conveniently summarized in the following statements:

November 4-5, 1933—Cincinnati. Meeting of Executive Committee. Development of general plan of study and procedures for securing official endorsement and financial support on the part of all six regional associations; for securing support from some educational foundation; and for suitable publicity.

June 29-30, 1934—Washington. Meeting of Executive Committee. Reports of contributions from five of the regional associations of \$4,501 for the first year, with understanding that same or larger amounts would be available for second and third years of the Study. Agreement that "following eleven fields are the most promising in which to develop guiding principles for the accrediting and stimulation of secondary schools": Aims, staff, educational program, pupil personnel service, finance, library service, plant, articulation, administration, institutional growth, and outside relationships.

February 23-25, 1935—Atlantic City. Four meetings of General, Executive, and Administrative Committees. Report that Dr. O. I. Frederick had been employed during the previous July to September, and Dr. M. L. Altstetter since October, 1934, at Ann Arbor and Nashville, constructing bibliographies and abstracting significant research studies in the eleven fields mentioned above. Also that arrangements for voluntary assistance in abstracting material in specific fields had been made with professors and graduate students at the Universities of Missouri, Pennsylvania, Chicago, New York, Stanford, Harvard, Boston, Indiana, Ohio State, California and Minnesota, and George Peabody College for Teachers. The purpose of this abstracting was to derive from existing research studies the most nearly valid principles and facts which might serve as bases for criteria to be used in evaluating, stimulating and improving the secondary school program. Report that the various Associations had, to date, appropriated \$8,500 for the purposes of the Study, plus contributed services representing a much greater sum.

February 27, 1935—New York. Conference of the Administrative Committee with representatives of one of the national educational foundations with reference to adequate financing of the contemplated three-year study. Request made for funds, for one year only, to complete the abstracting of research studies and to formulate criteria and procedures for later tryout—the first phase of the Study. Decision made to defer consideration of financing the second and third phases until the work of the first year could be evaluated.

April, 1935—New York. Preliminary grant of \$25,000 made by one of the national educational foundations to finance, in part, the first year of the Study.

May, 1935.—Washington. Meeting of Administrative Committee. Arrangements made for the opening of a central and research office in September at Washington with a full time staff consisting of Coordinator, Educational Specialist, Secretary, and other clerical assistance as needed.

3. Progress During the Year 1935-36. Progress during the current year (July 1, 1935—June 30, 1936) has been concerned largely with the first general phase of the Study. It may be summarized under the following nine topics:

(a) *Development of Tentative Criteria.* During the summer of 1935 Dr. Frederick and Dr. Altstetter worked full time at Nashville on the construction of detailed criteria totaling 217 pages of mimeographed material in thirteen different fields. These were submitted for study and criticism to members of the Executive Committee, and also to groups of graduate students (mostly secondary school principals, teachers, and superintendents) at Ohio State University, the University of Colorado, and Peabody College, where the three members of the Administrative Committee were teaching, and to faculty members of these same institutions.

(b) *Montreat Meeting of the Executive Committee.* The Executive Committee and invited advisory members met for a week, September 2-7, 1935, at Montreat, North Carolina. The time was spent in detailed consideration and criticism of the criteria prepared during the summer, in the formulation of statements of guiding principles in the different areas, and in consideration of plans for the work of the ensuing year. It

was voted to revise and reorganize the fourteen areas in which criteria had been provided or planned into five areas—the *Pupil*, the *Staff*, the *Plant*, the *Educational Program*, and *Administration*—all details to be worked out by the staff of the central office at Washington and submitted for approval to the members of the Administrative Committee.

(c) *General Management and Supervision.* During the year the Washington Office has been in general charge of the Coordinator, but at every stage the work has been closely supervised by the members of the Administrative Committee. Frequent meetings of this Committee have been held at Washington during the year. The Chairman of the General Committee, being on sabbatical leave, contributed the greater part of his time for almost two months in the Washington Office.

(d) *Revision of Criteria.* The major activity of the Washington Office during the year has revolved around the construction, criticism, and revision of checklists in the five major areas named above, and in the reorganization of the accompanying guiding principles. Copies of materials in these five fields as worked out in tentative form before Christmas, have been widely distributed for criticism, as indicated below:

- I. The secondary school pupil.....17 pages, 267 items
- II. The secondary school staff.....20 pages, 220 items
- III. The secondary school plant.....13 pages, 221 items
- IV. The educational program.....33 pages, 562 items
- V. Secondary school administration.....12 pages, 105 items

This material is considerably more extensive than is desirable for evaluating a school for accreditation, although it may not be excessive when stimulation toward improvement is the objective. The number of items will doubtless be reduced materially as a result of the proposed experimental tryout next year, while the guiding principles may be somewhat expanded.

(e) *Work of Collaborators.* During the autumn months considerable time and care were spent in securing the cooperation of approximately six hundred collaborators to assist in

critically evaluating the tentative criteria. These included, as far as possible, active principals of secondary schools, both public and private, in every state; specialists in secondary education in state departments; professors of secondary education in leading universities; groups of graduate students in education; librarians; and class-room teachers in the principal instructional fields. As each body of criteria was reorganized it was duplicated and sent to the collaborators with the request that it be studied critically from the standpoints of its possible usefulness for evaluation, for stimulation, and for accreditation, and that constructive suggestions for improvement be made. On the whole the reactions of these collaborators were distinctly favorable, but many significant suggestions for improvement were offered. These suggestions were summarized in a series of six mimeographed pamphlets, covering a total of 78 pages, which were submitted to the General Committee at its St. Louis conferences mentioned below.

(f) *Interpretation to Professional Groups.* In order that the Study might receive the nationwide understanding and cooperation which its purposes merit, considerable discussion and interpretation of its plans and progress was desirable. In addition to revising the criteria and summarizing the criticisms thereof, the central office staff therefore was also charged with acquainting educators throughout the country with the objectives and work of the Study. Accordingly considerable time was devoted to the preparation of special articles for educational journals, to general news releases, to progress reports sent to selected educators, and to oral presentations of the work of the Committee before various representative professional organizations. A partial list of the public addresses concerning the work of the Cooperative Study made to date and scheduled for the remainder of the year includes 45 such presentations. An incomplete list of publications concerning the work of the Study which have appeared during the current year includes 25 titles.

(g) *St. Louis Conferences.* All materials developed and

all summaries, criticisms and suggestions received from collaborators were presented and discussed at five sessions of the General Committee at St. Louis, February 20, 21 and 22. About forty-five other educators were present by special invitation at these sessions. Dr. George F. Zook, President of the American Council on Education, opened the Conference by commending the cooperative and scientific nature of the Study, and stressed the importance of continuing along the same lines. Analyses and evaluations of the work done in particular areas were made by Dr. Arthur J. Jones, of the University of Pennsylvania; Dr. Francis T. Spaulding, of Harvard University; Dr. Boyd H. Bode, of Ohio State University; Dr. N. L. Engelhardt, of Columbia University; and Dr. Harl R. Douglass, of the University of Minnesota. In general these evaluations were constructively critical, containing a variety of suggestions for modification and improvement. Dr. Charles H. Judd, of the University of Chicago, by special invitation attended all the sessions for the purpose of making a final critical analysis and evaluation of the entire undertaking. In his summary he emphasized the importance of selecting experimentally from the tentative criteria the significant elements determining a good school. The consensus of opinion, as developed in this series of conferences, strongly emphasized the importance of an adequate experimental determination of the validity of the suggested criteria and of the discovery of the most reliable and practical procedures for evaluating and stimulating secondary schools.

(h) *Plans for Completion of the First Phase of the Study.* As a result of the discussions and suggestions made at the St. Louis meetings the staff of the central office is spending the greater part of the time before the first of May in a further reorganization and revision of all materials designed for use in the proposed experimental tryout. They will also develop plans for the choice of schools, selection of personnel, selection of tests, and other factors related to the proposed program for the projected second phase of the Study. All of

this material is to be submitted for approval of the Executive Committee at a meeting scheduled to be held in Washington early in May.

(i) *Financial Support and Contributed Services.* The Study has been operating this year on a budget of approximately \$29,000 of which \$25,000 was furnished by the national education foundation grant mentioned above. The total amount furnished to date by the regional associations is \$12,500, of which over \$4,000 was available for use this year. All bills and expenses have been carefully checked by the Secretary of the Committee, a member of the staff of the United States Office of Education, and have been paid through the American Council on Education as fiscal agents.

In addition to the specific financial support as summarized above, approximately 224 days of service will have been rendered without compensation during the current fiscal year alone by the members of the Committee in connection with attendance at committee meetings. In addition to this definitely recorded service a much greater amount of time, the total of which cannot be determined definitely, has been contributed by the Committee members and by the collaborators in general in criticism and evaluation of the work of the Study. It seems only fair to recognize the importance of this voluntary service as distinct contributions to the support of the Study on the part of the institutions and agencies employing these men.

These statements do not include any estimates of services rendered by special collaborators prior to the current fiscal year in the abstracting of approximately 2,500 research studies, the value of which service was conservatively estimated at the time as approximately \$5,000, and constituted a reduction in the budget requirements of at least that amount.

It is hoped to secure sufficient additional support from the regional associations and from the national foundation which has already contributed to it to finance the second and third phases of the Study, as outlined below.

III. PLANS FOR THE SECOND PHASE OF THE STUDY

1. *General Statement*

After the revisions now under way have been completed the Study will have proceeded about as far as it can with profit as a work based on available scientific and research data and expert criticism and judgment. An experimental program should next be undertaken to select the essential elements in the present materials, as revised and supplemented, with a view to the determination of more effective procedures for accrediting and stimulating schools. It is estimated that a full school year will be required for the completion of this experimental program, constituting the second phase of the Study.

2. *Choice of Schools for Experimental Tryout.*

After careful consideration of the various factors involved, the Committee is convinced that at least 200 representative schools are needed for the tryout next year, due attention being paid to the following determining factors:

- a. Accreditation status
- b. Geographical distribution
- c. Control—public or private
- d. Enrollment
- e. Race
- f. Form of organization
- g. Type of community served
- h. Type of program offered
- i. Willingness to cooperate
- j. Sex of students
- k. Denominational control
- l. Boarding or day schools

Practical considerations make it desirable that the first five of these criteria be strictly observed in the selection of schools. The remaining criteria are to be applied as far as circumstances permit and warrant. Actual selection of the schools in each regional area will be the responsibility of regional committees because of their intimate knowledge of the characteristics of their schools.

The choice of schools proposed by the Committee provides for 175 institutions accredited by the regional associations since they are the organizations primarily concerned in the Study, and for 25 schools which are not accredited to find whether or not some of them may be superior in some respects to some of the accredited schools.

The geographical distribution is proportional to the number of accredited schools in each state and regional area. It is felt that it is important to have a wide distribution in order to sample school conditions in all parts of the country, to stimulate nation-wide interest in the work of the Committee and to remove the possibility of offense to any state or region. Schools will be selected within states in such a way as to economize on travel distances and resulting costs. The proposed number of schools in each state (but not location in the state) is shown in Fig. II.

The proportional distribution provides for only 32 private schools, the minimum number on which any conclusions can be based concerning this important type which has so many variations in size, control, sex, and other factors.

A very important factor is size of enrollment. It is suggested that 80 of the total of 200 schools should be small schools, of less than 200 pupils, a group in particular need of intensive study. Only 22 schools with enrollments in excess of 1,000 pupils are provided for.

It is highly important for the purposes of the Study that the 200 schools be arranged in at least five categories each of size sufficient to be significant. These categories will be determined by a combination of several independent criteria of general quality, as a basis for evaluation of the proposed checklist items and other tentative material. For example the following general classification will probably be made:

Very superior schools	40
Superior schools	40
Average schools	40
Inferior schools	40
Very inferior schools	40

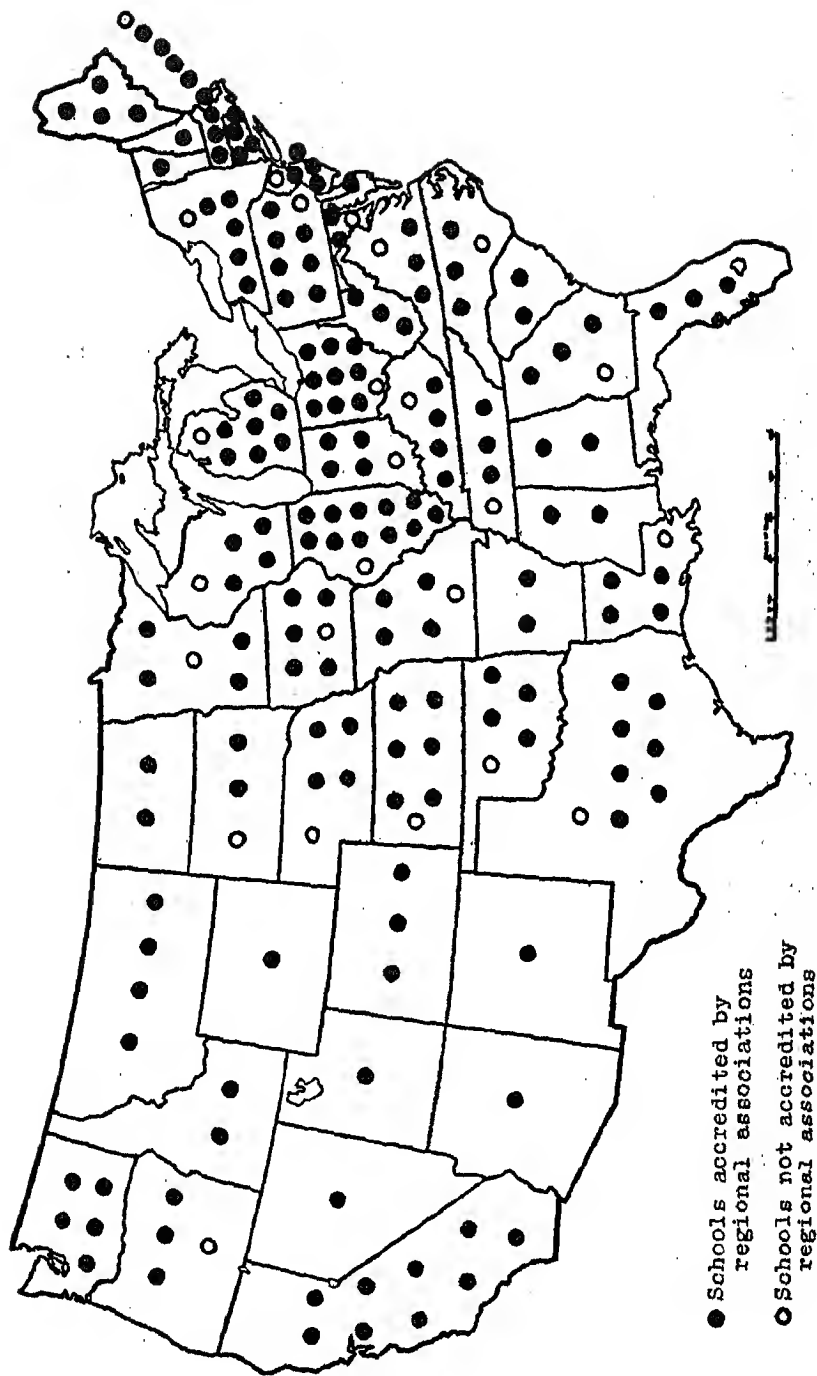


Fig. II. Proposed Distribution of Tryout Schools by States and Status of Accreditation

The independent criteria tentatively planned are the following:

- a. Qualitative judgments of qualified judges
- b. Rating of the schools on the evaluating instruments being developed
- c. Results of the testing program
- d. Study of the success of graduates of the schools

It is evident that the number of schools cannot be reduced materially if valid conclusions are to be drawn between different categories, especially when subdivisions of them are made. For example, if the various types of schools were equally distributed in the five categories, only six of the private schools would be found in each; only 16 of the small schools; only four or five of the large schools; only five of the non-accredited schools, etc.

Since there are approximately 27,000 secondary schools in the country, over 5,000 of which are regionally accredited, some advisers with statistical experience have strongly urged that a much larger number is necessary to secure really adequate and reliable samples of the various groups which it is desired to study and evaluate.

The Committee is also considering the desirability of setting up tentative norms as a basis for the construction of a profile chart for each school, somewhat similar to the plan of the North Central Association study of higher institutions. For this purpose, also, it is desirable to have a number of schools sufficiently large to be representative of all types and sections of the country.

3. *Field Work.* During the academic year 1936-37 the Committee plans to study these 200 schools intensively, employing at least the following means.

1. Statements from each school indicating (1) its educational philosophy and (2) its definitely recognized purposes
2. A body of factual data, supplied by each school, relative to the various areas,—pupils, staff, plant, educational program, and administration
3. Reports of studies and experiments; other evidences of the nature and quality of the work done by the school
4. Personal visitation of each school for periods of two to five days each

by a committee of three men representing different points of view and relationships to the secondary school. The functions of these visitors will be: (1) to form individual and group judgments concerning the general character and quality of the school; (2) to apply the tentative criteria in the five different areas to the actual work of the school; and (3) to render a group judgment as to the degree to which the stated purposes of the school are being achieved

5. A testing program designed to measure the fundamental ability of students and significant changes in their academic achievements and desirable social attitudes during the year
6. A study of the success of graduates of each school who have entered various standard colleges and universities or engaged in other post-school activities

4. *Testing Program.* Details of a suggested testing program to cover approximately 100 pupils in each of the tryout schools are being formulated.

The fundamental purpose of the testing program is two-fold: (1) to furnish one of the independent, objective criteria by which to judge the general quality of the tryout schools; (2) to determine the value of certain aspects of standard tests as one means for the evaluation and stimulation of secondary schools. For both purposes it appears desirable to measure progress during a school year in the five general fields of English, social science, natural science, mathematics, and foreign languages, as well as changes in general attitudes—all progress to be interpreted in terms of the relative ability of pupils as indicated by the American Council Psychological test.

IV. PLANS FOR THE THIRD PHASE OF THE STUDY

While the material resulting from the experimental work in the tryout schools as outlined above will be summarized as fast as received during the year 1936-37, there are many aspects of it which cannot be studied until the year's experimental program is completed. It is planned, therefore, to devote the greater part of the third year, 1937-38, to an extensive analysis of results and an effort to evaluate each feature of all the above material and procedures in order to determine their validity and relative importance and signifi-

cance. The conclusions would then be published and made available to the regional accrediting associations sponsoring the Study.

V. OUTCOMES TO BE ATTAINED

At the conclusion of the Study the Committee expects that the following outcomes will have been attained:

1. Secondary schools and regional and state agencies will be provided with valid criteria for identifying a good secondary school.
2. Regional and state agencies will be provided with improved procedures for evaluating the effectiveness of a school in terms of its objectives.
3. Techniques and procedures for the continuous improvement of secondary schools will be discovered and their effectiveness demonstrated.
4. Proposals for continuous programs of stimulation of the growth of secondary schools will be formulated as recommendations or suggestions to regional and state agencies.
5. The Committee conceives as the most important ultimate outcome of the entire Study, the development of a scientific cooperative program on the part of all the regional associations and other agencies interested in the progress of secondary education. This program will make possible the effective utilization of the results of scientific study in educational practice.

WALTER CROSBY EELLS,
Coordinator.

Pioneering in Higher Education, 1785-1935

THE Act of the General Assembly creating The University of Georgia was passed in 1784. The Charter was granted in 1785—150 years ago. This academic year, therefore, marks the sesquicentennial of the granting of the Charter of the University. It was Massachusetts that gave to the world the idea of the free public school system, but it was Georgia that pioneered the idea of free institutions of higher learning—state universities. Abraham Baldwin, father of The University of Georgia and founder of American state universities, drafted the Charter. We quote:

As it is the distinguishing happiness of free governments that civil order should be the result of choice and not necessity, and the common wishes of the people become the law of the land, their public prosperity, and even existence, very much depends upon suitably forming the minds and morals of their citizens. When the minds of the people in general are viciously disposed and unprincipled, and their conduct disorderly, a free government will be attended with greater confusions and evils more horrid than the wild, uncultivated state of nature: it can only be happy where the public principles and opinions are properly directed and their manners regulated. This is an influence beyond the stretch of laws and punishments, and can be claimed only by religion and education. It should therefore be among the first objects of those who wish well to the national prosperity to encourage and support the principles of religion and morality, and early to place the youth under the forming hand of society that by instruction they may be moulded to the love of virtue and good order. Sending them abroad to other communities for their education will not answer these purposes, is too humiliating an acknowledgment of the ignorance and inferiority of our own, and will always be the cause of so great foreign attachments, that upon principles of policy it is inadmissible.

This country in the times of our common danger and dis-

tress, found such security in the principles and abilities which wise regulations had before established in the minds of our countrymen, that our present happiness, joined to the pleasing prospects, should conspire to make us feel ourselves under the strongest obligation to form the youth, the rising hope of our land, to render the like glorious and essential services to our country.

Contrary to what many people in Georgia and in other states believe, the records show that the people of Georgia, from the commencement of their independence to the full establishment of their constitutional government, have recognized the duty of making public and ample provision for the education of all her citizens. The records show that her Halls and Baldwins, with their many worthy coadjutors, in the achievement of our independence, did not doubt that the State could and would become an efficient patron of learning, that correct moral and religious instruction could be imparted in our public schools and colleges.

The chief characteristic of Georgians, marking their whole history from generation to generation, is their love of liberty, and their restiveness under regimentation. This characteristic is the priceless heritage of The University of Georgia. For many decades the Georgian's view of human freedom was limited, as Jefferson's was, by the political and social conditions of a land-holding aristocracy; but the University is proud to hand down the keen sense of honor and hospitality and good breeding which were, with intellectual liberty, among the finer features of that period.

In later days the University taught and illustrated a broader democracy; and, while preserving and honoring what we deem best in the old, our chief aim has been to bring a vital higher education into the reach of all the youth of the State, and to explore their immediate social and economic and cultural environment in the light of all that is best in our traditions and all that we deem to be best in the most modern thought. True, our state supported higher education has not been without its faults. Most serious among these was the tendency

toward decentralization which came with the turn of the present century.

There had long been a feeling that although the University had in Athens an agricultural and mechanical college, it was attempting to teach farming without going near a plowed field. In 1897 the legislature established this fact to its own satisfaction; but nothing was done to remedy the situation until 1906, when it set up in Athens the Georgia State College of Agriculture. At the same time it scattered throughout the state small agricultural and mechanical schools, apportioning them among the congressional districts. Thereafter the multiplication of branches of the University continued so fast that it was not halted until there was fastened upon the state an educational monstrosity with twenty-four branches bearing the misnomer, University of Georgia.¹

The reorganization of the University System of Georgia was begun in 1931 by legislative action and by the then created Board of Regents. At the outset the Regents made application to the General Education Board for funds for a complete, educational survey of the State supported institutions of higher learning. The request was granted, and a Survey Commission was appointed composed of experts in various fields, who submitted a printed report after the Commission had made a careful analysis of the situation.

The recommendations need not be enumerated; they are too elaborate to be given in detail. We desire, however, to call attention to three major ones: (*a*) the reduction in the number of institutions; (*b*) the election of an executive secretary of the University System so that the Chancellor could give his attention to major issues of educational policy, to public relations, and to supervision, and (*c*) the organization of a University System Council.

As a result of these recommendations nine institutions were abolished, two senior institutions were reduced from senior level to junior level, and the remaining were strengthened by

¹E. M. Coulter, *A Short History of Georgia*. University of North Carolina Press, 1933, p. 403.

more adequate financial support. The development of uniform, standardized examinations, the beginnings of student counselling and personnel procedures, and the integration of several research programs related to systematic curricular reform have already been described in *THE EDUCATIONAL RECORD*.²

In their report to the Regents the Survey Commission, sponsored by the General Education Board, made this statement:

For the paramount purpose of promoting that internal integration of the University System which is the product of mutual understanding and complete cooperation of individuals, it is recommended that steps be taken to organize under the direction of the Chancellor a university council representative of the institutional, educational, and scientific interests concerned.

This has been done.

The Council and its functions are not to be confused with the internal administration and powers of legislation which belong to the administration and the faculty of each college in the System. Rather, the Council is independent of any and all colleges but is representative of all schools and virtually all activities of schools.

The reorganization of 1931 laid particular stress upon the function of a State university as that of service to the community which supports it. Pursuant to the policy of the reorganization, the Council was established as a central agency for bringing the common problems of the several units of the System into focus so that their solutions might grow out of the uncovering of common interests and purposes. Hence, the function of the Council is not legislative nor administrative; its function is to explore common problems, to deliberate upon common purposes, and to recommend to the Chancellor and the Board of Regents specific proposals which merit action.

In the first instance the exploratory function of the group canvasses such problems as arise from considerations of cur-

² *The Educational Record*, Supplement No. 9, January, 1936, pp. 44-49.

ricula, the transfer of students from college to college, and the examination of students for purposes of accrediting their standing with reference to professional specialization or vocational possibilities. In addition, questions relative to faculty tenure, retirement, qualifications, and research are matters which come specifically within the exploratory powers of the Council. Its second function is deliberative; that is, through the medium of group conferences, it hears the reports of special committees whose task it has been to inquire into the various matters described above under the exploratory function. These reports are debated at length, are modified in the light of individual and collective judgment, and are committed to writing.

The final duty of the Council is to prepare in the form of written proceedings a series of recommendations which are submitted to the Chancellor and the Board of Regents. These recommendations furnish the chief executive and the Board with a cross section of opinions, judgments, and comments which have grown out of the administrations and faculties of the several colleges. Six such reports, in the form of proceedings, have thus far been submitted for legislative action. *In no instance has the Board seen fit to ignore any specific recommendation, nor on the other hand has it seen fit to put the recommendations of the Council into legislation without some modification.* These facts, with reference to recommendations of the Council and the action taken by the Board, pay high tribute to the relative uniformity of point of view from which administrators, faculties, the Regents, and the Chancellor see the obligations of the University System to the people who support it.

It would be hard to conceive a system of checks and balances more systematically arranged to safeguard the interests of the people and to promote a program of service and research in higher education than the one now in vogue: The Council, the Board of Regents, and the Chancellor. According to the order in which they are named, their functions are exploratory and deliberative, legislative, and executive.

At present regional relationships among colleges having independent administrations are being regarded as a matter of necessity, if higher education is to serve the best interests of society. In the Council of the University System of Georgia there is a suggestion, perhaps even a promise, of how regional integration may be made to satisfy a felt need.

S. V. SANFORD, *Chancellor*, and
F. S. BEERS, *Executive Secretary*,
University System of Georgia.

The 1935 Psychological Examination

THE 1935 edition of the American Council on Education Psychological Examination is the twelfth edition. It has been ordered by 493 institutions, and the number of tests that have been used is 189,506. These figures are of January 10.

This report contains norms for the 1935 edition. Gross scores have been tabulated for all records received by March 14. At that time 266 colleges had reported scores for a total of 58,402 students.

The first table contains a list of the scores of the colleges which have made reports. In order to discourage the use of test results as the basis for comparative ranking of institutions, this year the names of the colleges have been deleted. The number of freshman scores reported is shown for each college, and the last three columns indicate the quartile points for the gross scores from each. Table II is an alphabetical list of the institutions reported in Table I.

Table III shows the distribution of gross scores for 56,895 freshmen and the percentile ranks corresponding to the scores.

Tabulations were made of the separate test scores for 16,081 students in a group of 64 colleges. The results of these calculations and norms for the five separate tests are shown in Tables IV to VIII inclusive. Table IX presents the distribution of gross scores for the group of colleges for which separate tests were tabulated. A comparison of Table III and Table IX shows that the colleges selected fairly represent the total group.

A comparison of scores on the 1934 and 1935 editions may be made from the table of equivalent scores, Table X. These norms are based on the records of 181 colleges which reported scores in both years. It seems safe to assume that the standards of the colleges did not vary markedly during this period and that the difference in corresponding scores represents a change in the difficulty of the test. This was

expected because of the addition of six easy items to the Opposites Test.

This year a large number of Junior colleges and Teachers colleges reported scores so that we have been able to prepare separate distributions for them. Table XI presents the distributions of gross scores and corresponding percentiles for three groups of colleges, i. e., Junior colleges, Teachers colleges, and four-year colleges.

TABLE I

SCORES OF INDIVIDUAL COLLEGES AND UNIVERSITIES BY CODE NUMBER

<i>Institution code number</i>	<i>Number of students</i>	<i>G r o s s S c o r e s</i>		
		<i>Q₁</i>	<i>Median</i>	<i>Q₃</i>
1	89	230.25	254.50	279.79
2	338	209.32	240.00	270.83
3	335	210.29	238.19	261.02
4	147	198.44	236.33	269.25
5	613	201.59	232.70	267.01
6	218	194.06	231.76	268.21
7	116	207.27	230.00	266.67
8	168	200.00	230.00	258.00
9	2494	199.33	228.77	259.59
10	170	209.00	228.75	260.50
11	84	201.67	228.33	249.00
12	201	193.91	227.94	261.46
13	71	197.19	226.43	260.31
14	198	193.00	224.00	257.31
15	42	201.00	224.00	252.50
16	304	196.67	223.91	255.00
17	443	188.98	223.00	256.76
18	21	186.25	222.50	239.38
19	49	182.50	221.25	275.83
20	45	186.25	221.00	239.64
21	157	187.66	220.28	249.04
22	115	185.36	218.93	262.50
23	335	188.98	218.75	249.20
24	85	167.08	218.75	241.50
25	637	190.85	217.57	250.85
26	173	183.91	215.00	249.17
27	92	172.86	215.00	243.33
28	226	179.44	214.62	254.72
29	456	179.12	213.14	246.54
30	97	182.50	212.69	244.58
31	169	164.72	212.06	242.75

<i>Institution code number</i>	<i>Number of students</i>	<i>G r o s s S c o r e s</i>		
		<i>Q₁</i>	<i>Median</i>	<i>Q₃</i>
32	890	181.02	210.44	241.96
33	60	182.00	210.00	237.14
34	102	173.00	209.29	255.00
35	47	172.50	207.50	236.50
36	36	182.50	207.50	230.00
37	50	155.00	206.67	241.00
38	261	176.35	206.43	241.17
39	108	171.00	206.36	243.33
40	92	160.00	205.71	235.71
41	64	166.00	205.56	238.00
42	150	172.78	205.29	240.63
43	287	174.67	205.18	238.91
44	230	168.75	204.44	244.58
45	78	180.56	204.29	228.50
46	91	168.75	204.17	235.42
47	64	163.33	203.33	247.50
48	63	149.50	203.12	228.50
49	73	166.50	202.50	241.50
50	266	159.58	201.67	234.05
51	224	155.00	201.43	232.50
52	218	172.65	201.33	236.58
53	298	170.25	200.36	239.71
54	683	167.34	200.21	232.33
55	119	171.71	199.00	229.17
56	78	175.00	198.57	234.38
57	102	171.67	198.18	235.83
58	786	157.57	198.14	235.63
59	247	174.08	198.13	230.13
60	127	158.61	197.86	225.83
61	330	167.50	197.81	232.71
62	114	153.18	197.50	237.50
63	25	162.50	197.50	217.50
64	149	162.00	197.14	229.33
65	79	162.92	196.43	228.05
66	176	153.33	196.25	236.00
67	75	155.83	196.25	231.25
68	168	166.15	195.88	234.00
69	301	153.75	195.80	229.43
70	194	156.33	195.33	226.76
71	35	154.38	195.00	246.25
72	63	172.19	195.00	240.83
73	61	168.75	195.00	221.50
74	110	153.00	194.62	229.17
75	147	162.97	194.33	233.54
76	172	150.00	194.00	234.62
77	124	150.00	193.85	232.73
78	136	153.33	193.57	225.00

<i>Institution code number</i>	<i>Number of students</i>	<i>G r o s s S c o r e s</i>		
		<i>Q₁</i>	<i>Median</i>	<i>Q₃</i>
79	137	157.81	193.50	234.50
80	473	151.79	192.36	220.66
81	80	146.00	192.22	224.29
82	67	155.50	192.14	220.83
83	137	162.71	191.88	235.36
84	82	152.14	191.67	230.83
85	74	159.00	191.67	229.29
86	439	154.29	191.35	227.02
87	872	149.52	191.08	227.07
88	239	156.07	190.94	231.73
89	199	150.68	190.88	224.38
90	317	152.83	190.83	233.38
91	57	147.50	190.83	222.50
92	226	160.33	190.77	225.00
93	167	155.17	190.36	230.25
94	358	157.38	190.36	228.27
95	60	158.33	190.00	235.00
96	146	135.00	190.00	231.88
97	191	165.88	188.41	215.39
98	17	147.50	188.33	223.75
99	613	153.60	187.89	224.77
100	21	162.50	187.50	215.83
101	118	164.38	187.27	215.91
102	122	153.13	187.00	230.71
103	318	150.23	186.15	219.75
104	105	158.13	186.11	225.94
105	179	144.22	185.00	225.42
106	165	150.16	185.00	219.79
107	21	112.50	185.00	214.38
108	598	151.07	184.26	221.41
109	317	145.25	183.97	219.13
110	129	138.75	183.75	219.72
111	183	145.96	183.67	224.04
112	235	147.88	183.41	219.08
113	508	153.44	182.89	215.00
114	89	144.50	182.78	219.64
115	671	147.56	182.58	219.15
116	11	145.83	182.50	214.17
117	88	135.00	182.50	205.00
118	103	139.69	182.27	220.63
119	107	149.38	181.67	232.81
120	255	134.42	181.25	217.36
121	49	147.50	181.00	207.92
122	75	139.38	180.71	210.50
123	625	145.31	180.27	217.50
124	40	135.00	180.00	206.67
125	180	145.45	179.33	209.55

<i>Institution code number</i>	<i>Number of students</i>	<i>G r o s s S c o r e s</i>		
		<i>Q₁</i>	<i>Median</i>	<i>Q₃</i>
126	105	132.50	179.30	219.17
127	77	140.42	179.17	215.50
128	166	145.94	179.09	223.57
129	124	144.00	178.89	212.22
130	130	141.67	178.75	215.83
131	186	142.50	178.18	214.58
132	117	137.08	178.13	208.75
133	76	135.00	178.00	210.00
134	56	146.67	178.00	202.00
135	206	135.00	177.92	216.82
136	143	143.13	177.86	223.75
137	772	141.84	177.76	215.78
138	149	134.72	177.73	215.75
139	48	144.00	177.50	220.00
140	86	145.00	177.50	216.43
141	118	134.58	177.50	205.50
142	137	138.06	177.33	218.61
143	239	140.44	177.19	220.67
144	1064	144.53	177.04	213.77
145	155	137.68	176.82	226.07
146	32	156.67	176.67	230.00
147	142	141.36	176.67	215.63
148	321	137.39	176.46	224.31
149	271	133.06	175.95	215.69
150	192	136.67	175.71	219.17
151	188	120.00	175.71	213.75
152	115	129.38	175.63	220.31
153	218	140.94	175.33	209.00
154	204	153.04	175.24	198.42
155	57	126.50	175.00	223.75
156	225	130.28	175.00	219.69
157	194	137.00	175.00	215.00
158	54	145.00	175.00	203.75
159	53	136.50	174.17	207.92
160	80	137.50	173.75	216.00
161	403	134.67	173.68	213.82
162	97	138.75	173.57	203.93
163	188	136.25	173.50	205.45
164	501	137.65	173.38	211.56
165	120	135.56	173.08	222.00
166	55	138.75	173.00	210.83
167	253	138.75	172.83	211.07
168	209	144.85	172.50	215.96
169	195	134.17	172.50	209.06
170	105	138.50	172.50	206.39
171	177	134.46	172.14	218.44
172	101	135.63	172.14	205.50

<i>Institution code number</i>	<i>Number of students</i>	<i>G r o s s S c o r e s</i>		
		<i>Q₁</i>	<i>Median</i>	<i>Q₃</i>
173	34	128.33	172.00	212.50
174	100	134.00	172.00	205.00
175	276	138.24	171.38	204.00
176	33	147.50	171.25	207.50
177	121	130.50	170.83	205.36
178	121	142.71	170.71	212.19
179	139	135.94	170.50	210.96
180	1392	133.10	170.10	207.32
181	34	125.00	170.00	207.50
182	64	136.67	170.00	204.00
183	111	138.21	169.64	206.94
184	266	140.36	169.64	202.92
185	208	134.00	169.33	212.14
186	73	137.08	169.17	213.50
187	96	128.00	168.75	207.50
188	291	129.17	168.75	205.44
189	74	121.67	168.33	212.50
190	276	131.05	168.33	204.17
191	127	131.59	168.33	203.21
192	98	127.22	168.00	216.88
193	60	132.00	168.00	205.00
194	130	134.09	168.00	198.75
195	295	131.88	167.71	200.16
196	215	133.65	167.38	204.25
197	475	141.06	166.70	196.74
198	32	130.00	166.67	223.33
199	38	138.33	166.67	217.50
200	56	122.86	166.67	200.00
201	39	116.88	166.25	212.50
202	103	135.83	165.77	200.42
203	223	129.26	165.67	201.88
204	376	129.31	165.19	198.93
205	107	126.39	165.00	212.08
206	171	131.59	165.00	206.41
207	242	124.58	165.00	198.53
208	115	135.75	164.58	200.63
209	486	131.97	163.50	197.42
210	158	126.82	163.33	201.50
211	91	124.58	163.00	200.42
212	89	136.50	162.50	215.83
213	25	116.25	161.67	207.50
214	140	127.86	161.67	203.33
215	542	128.65	161.67	202.66
216	174	127.31	161.25	217.92
217	108	130.00	161.25	201.43
218	83	125.50	160.71	193.21
219	213	132.19	160.50	197.97

<i>Institution code number</i>	<i>Number of students</i>	<i>G r o s s S c o r e s</i>		
		<i>Q₁</i>	<i>Median</i>	<i>Q₃</i>
220	664	126.00	160.19	197.57
221	24	105.00	160.00	230.00
222	176	132.14	160.00	187.86
223	102	119.38	160.00	187.50
224	717	126.85	159.74	199.94
225	221	124.26	159.67	207.50
226	127	125.28	159.50	200.50
227	178	122.06	158.46	188.21
228	416	120.25	158.33	203.00
229	85	124.50	157.00	187.50
230	78	113.75	156.67	197.50
231	1585	121.91	156.50	193.20
232	129	117.81	156.11	189.72
233	100	117.50	156.00	200.00
234	44	125.00	156.00	190.00
235	16	130.00	155.00	240.00
236	136	117.18	154.55	204.29
237	129	125.21	154.33	190.83
238	278	122.68	154.29	188.61
239	323	119.90	154.26	192.10
240	130	118.85	154.17	191.88
241	241	106.81	148.44	179.86
242	169	115.78	147.92	183.41
243	161	107.50	146.82	184.79
244	78	106.25	146.00	191.00
245	425	114.69	145.83	183.23
246	51	123.75	145.83	182.50
247	1455	110.18	144.72	183.82
248	364	117.27	144.59	176.88
249	84	117.50	144.44	183.33
250	494	114.27	144.42	179.86
251	60	112.00	143.33	171.25
252	72	115.00	142.00	187.50
253	55	119.50	141.88	174.50
254	716	107.58	141.53	178.78
255	154	117.22	141.33	184.09
256	86	109.29	140.00	188.33
257	130	110.50	139.29	181.25
258	86	106.43	138.50	176.82
259	59	115.94	131.25	167.50
260	28	103.33	130.00	200.00
261	331	99.31	128.23	163.21
262	141	92.71	127.86	171.07
263	40	85.00	117.50	155.00
264	156	93.00	116.67	147.65
265	88	55.71	82.00	111.43

TABLE II

UNIVERSITIES AND COLLEGES SUBMITTING TEST RECORDS

Alabama College, Montevallo, Ala.
Alabama Polytechnic Institute, Auburn, Ala.
Alberta Normal School, Edmonton, Alberta.
Albion College, Albion, Mich.
Alfred University, Alfred, N. Y.
All Saints' Jr. College, Vicksburg, Miss.
Allegheny College, Meadville, Pa.
Alma College, Alma, Mich.
Antioch College, Yellow Springs, Ohio.
Baker University, Baldwin City, Kan.
Bakersfield Junior College, Bakersfield, Calif.
Baltimore College of Commerce, Baltimore, Md.
Bay City Jr. College, Bay City, Mich.
Belhaven College, Jackson, Miss.
Bennett College, Greensboro, N. C.
Bennington College, Bennington, Vt.
Bethany College, Bethany, W. Va.
Bethel College, Newton, Kan.
Birmingham-Southern College, Birmingham, Ala.
Blackburn College, Carlinville, Ill.
Bouve-Boston School of Physical Education, Boston, Mass.
Bowdoin College, Brunswick, Me.
Bradley Polytechnic Institute, Peoria, Ill.
Brooklyn College, Brooklyn, N. Y.
Bucknell University, Lewisburg, Pa.
Carleton College, Northfield, Minn.
Carroll College, Helena, Mont.
Carroll College, Waukesha, Wis.
Case School of Applied Science, Cleveland, Ohio.
Centenary College, Shreveport, La.
Central College, Fayette, Missouri.
Central State Teachers College, Mt. Pleasant, Mich.
Central Y.M.C.A. College, Chicago, Ill.
Centre College of Kentucky, Danville, Ky.
Chevy Chase School, Washington, D. C.
Chico State College, Chico, Calif.
Clark University, Worcester, Mass.
Coe College, Cedar Rapids, Iowa.
Colgate University, Hamilton, N. Y.
College of the City of New York, New York, N. Y.

- College of Emporia, Emporia, Kansas.
College of Idaho, Caldwell, Idaho.
College of Mount St. Vincent, New York, N. Y.
College of Notre Dame of Maryland, Baltimore, Md.
College of the Pacific, Stockton, Calif.
College of Puget Sound, Tacoma, Wash.
College of St. Elizabeth, Convent Station, N. J.
College of St. Francis, Joliet, Ill.
College of St. Scholastica, Duluth, Minn.
College of William and Mary, Williamsburg, Va.
Colorado College, Colorado Springs, Colo.
Colorado State College of Agriculture and Mechanic Arts,
Fort Collins, Colo.
Colorado State College of Education, Greeley, Colo.
Columbia Bible College, Columbia, So. Car.
Connecticut College, New London, Conn.
Dartmouth College, Hanover, N. H.
Delta State Teachers College, Cleveland, Miss.
Dickinson College, Carlisle, Pa.
Dowling College, Des Moines, Iowa.
Drew University, Madison, N. J.
Earlham College, Richmond, Ind.
Eastern Illinois State Teachers College, Charleston, Ill.
Eastern Kentucky State Teachers College, Richmond, Ky.
Elizabethtown College, Elizabethtown, Pa.
Elmhurst College, Elmhurst, Ill.
Emmanuel Missionary College, Berrien Springs, Mich.
Emory Junior College, Oxford, Ga.
Emory Junior College, Valdosta, Ga.
Emory University, Emory University, Ga.
Eureka College, Eureka, Ill.
Evansville College, Evansville, Ind.
Fenn College, Cleveland, Ohio.
Florida State College for Women, Tallahassee, Fla.
Fonbonne College, St. Louis, Mo.
Franklin College of Indiana, Franklin, Ind.
Fresno State College, Fresno, Calif.
Gale Jr. College, Galesville, Wis.
Gallaudet College, Washington, D. C.
Geneva College, Beaver Falls, Pa.
George Washington University, Washington, D. C.
George Williams College, Chicago, Ill.
Georgia State College for Women, Milledgeville, Ga.

Georgia State Woman's College, Valdosta, Ga.
Georgian Court College, Lakewood, N. J.
Gettysburg College, Gettysburg, Pa.
Glendale Jr. College, Glendale, Calif.
Glendale Sanitarium & Hospital, Glendale, Calif.
Goshen College, Goshen, Ind.
Graceland College, Lamoni, Iowa.
Great Falls Jr. College, Great Falls, Montana.
Green Mountain Jr. College, Poultney, Vt.
Grinnell College, Grinnell, Iowa.
Hanover College, Hanover, Ind.
Hendrix College, Conway, Ark.
Hobart College, Geneva, N. Y.
Hood College, Frederick, Md.
Hutchinson Jr. College, Hutchinson, Kansas.
Illinois College, Jacksonville, Ill.
Indiana State Teachers College, Terre Haute, Ind.
Iowa Wesleyan College, Mount Pleasant, Iowa.
James Milliken University, Decatur, Ill.
Judson College, Marion, Ala.
Junior College of Connecticut, Bridgeport, Conn.
Kalamazoo College, Kalamazoo, Mich.
Kenyon College, Gambier, Ohio.
Keuka College, Keuka Park, N. Y.
Knox College, Galesburg, Ill.
Lake Forest College, Lake Forest, Ill.
Larson Jr. College, Hamden, Conn.
La Salle College, Philadelphia, Pa.
Lawrence College, Appleton, Wis.
Lehigh University, Bethlehem, Pa.
Lewiston State Normal School, Lewiston, Idaho.
Lincoln College, Lincoln, Ill.
Linfield College, McMinnville, Oregon.
Louisiana State University, Baton Rouge, La.
Louisville Municipal College, Louisville, Ky.
Lynchburg College, Lynchburg, Va.
Lyons Township Jr. College, La Grange, Ill.
MacMurray College, Jacksonville, Ill.
Marion College, Marion, Ind.
Marquette University, Milwaukee, Wis.
Maryland State Teachers College, Frostburg, Md.
Maryland State Teachers College, Towson, Md.
Maryville College, Maryville, Tenn.

Marywood College, Scranton, Pa.
Massachusetts State College, Amherst, Mass.
McPherson College, McPherson, Kansas.
Mercyhurst College, Erie, Pa.
Middlebury College, Middlebury, Vt.
Millsaps College, Jackson, Miss.
Missouri Valley College, Marshall, Mo.
Monmouth College, Monmouth, Ill.
Montana State College, Bozeman, Montana.
Montana State Normal College, Dillon, Montana.
Moravian Seminary & College, Bethlehem, Pa.
Morningside College, Sioux City, Iowa.
Morton Jr. College, Cicero, Ill.
Mount Mercy College, Pittsburgh, Pa.
Mount Mercy Jr. College, Cedar Rapids, Iowa.
Mount St. Joseph College, Chestnut Hill, Pa.
Muhlenberg College, Allentown, Pa.
National College of Education, Evanston, Ill.
Nazareth College, Rochester, N. Y.
North Central College, Naperville, Ill.
North Georgia College, Dahlonega, Georgia.
Northern Illinois State Teachers College, De Kalb, Ill.
Northland College, Ashland, Wis.
Notre Dame College, South Euclid, Ohio.
Oak Park Jr. College, Oak Park, Ill.
Oberlin College, Oberlin, Ohio.
Oregon State College, Corvallis, Oregon.
Ottawa University, Ottawa, Kansas.
Pacific University, Forest Grove, Oregon.
Park College, Parkville, Mo.
Parsons College, Fairfield, Iowa.
Pennsylvania College for Women, Pittsburgh, Pa.
Philadelphia Normal School, Philadelphia, Pa.
Phillips University, Enid, Okla.
Pine Manor Jr. College, Wellesley, Mass.
Pomona College, Claremont, Calif.
Port Huron Jr. College, Port Huron, Mich.
Randolph-Macon Woman's College, Lynchburg, Va.
Rhode Island State College, Kingston, R. I.
Richland County Normal School, Richland, Wis.
Rollins College, Winter Park, Fla.
Rosary College, River Forest, Ill.
Rosemont College, Rosemont, Pa.

Russell Sage College, Troy, N. Y.
St. Clare College, St. Francis, Wis.
Saint Francis Xavier College for Women, Chicago, Ill.
St. Helen's Hall Jr. College, Portland, Ore.
St. Joseph College, West Hartford, Conn.
St. Mary-of-the-Woods College, St. Mary-of-the-Woods,
Indiana.
St. Mary's College, Notre Dame, Ind.
St. Mary's Female Seminary, St. Mary's City, Md.
St. Meinrad Seminary, St. Meinrad, Ind.
St. Thomas College, Scranton, Pa.
St. Vincent College, Latrobe, Pa.
Salem College, Winston-Salem, N. C.
San Francisco Jr. College, San Francisco, Calif.
Santa Barbara State College, Santa Barbara, Calif.
Santa Rosa Jr. College, Santa Rosa, Calif.
School of Nurses, Woman's Hospital, Philadelphia, Pa.
Scottsbluff Jr. College, Scottsbluff, Neb.
Scranton-Keystone Jr. College, La Plume, Pa.
Seton Hill College, Greensburg, Pa.
Shepherd State Teachers College, Shepherdstown, W. Va.
Shorter College, Rome, Ga.
Shurtleff College, Alton, Ill.
Simmons College, Boston, Mass.
Sioux Falls College, Sioux Falls, S. Dak.
Skidmore College, Saratoga Springs, N. Y.
Southern Oregon State Normal School, Ashland, Ore.
Southwestern, Memphis, Tenn.
Southwestern College, Winfield, Kansas.
Southwestern Louisiana Institute, Lafayette, La.
Spring Hill College, Mobile, Ala.
State College of Washington, Pullman, Wash.
State Teachers College, Jacksonville, Ala.
State Teachers College, Mankata, Minn.
State Teachers College, Winona, Minn.
State Teachers College, Mayville, N. Dak.
State Teachers College, Valley City, N. Dak.
State Teachers College, Memphis, Tenn.
State University of Montana, Missoula, Mont.
Sweet Briar College, Sweet Briar, Va.
Taft Jr. College, Taft, Calif.
Thornton Jr. College, Harvey, Ill.
Trinity College, Hartford, Conn.

Trinity College, Washington, D. C.

Tufts College, Medford, Mass.

Arts

Engineering

Tulane University of Louisiana, New Orleans, La.

Tusculum College, Greeneville, Tenn.

University of Alberta, Edmonton, Alberta.

University of Buffalo, Buffalo, N. Y.

University of Chattanooga, Chattanooga, Tenn.

University of Chicago, Chicago, Ill.

University of Colorado, Boulder, Colo.

University of Delaware, Newark, Del.

University of Denver, Denver, Colo.

University of Idaho, Moscow, Idaho.

University of Louisville, Louisville, Ky.

University of Louisville, Speed Scientific School, Louisville, Ky.

University of Maine, Orono, Me.

Agriculture

Arts & Sciences

Technology

University of Maryland, College Park, Md.

University of New Hampshire, Durham, N. H.

University of New Mexico, Albuquerque, N. Mex.

University of Oregon, Eugene, Ore.

University of Redlands, Redlands, Calif.

University of Rochester, Rochester, N. Y.

University of Tulsa, Tulsa, Okla.

University of Vermont, Burlington, Vt.

Ursinus College, Collegeville, Pa.

Ursuline College, New Orleans, La.

Valparaiso University, Valparaiso, Ind.

Vanderbilt University, Nashville, Tenn.

Washburn College, Topeka, Kansas.

Washington College, Chestertown, Md.

Washington & Jefferson College, Washington, Pa.

Washington & Lee University, Lexington, Va.

Washington State Normal School, Bellingham, Wash.

Wayne University, Detroit, Mich.

Wells College, Aurora, N. Y.

West Virginia University, Morgantown, W. Va.

Westbrook Seminary & Jr. College, Portland, Me.

Western College, Oxford, Ohio.

Western Illinois State Teachers College, Macomb, Ill.
 Western Reserve University, Cleveland, Ohio.
 Western State Teachers College, Kalamazoo, Mich.
 Westminster College, Fulton, Mo.
 Westminster College, New Wilmington, Pa.
 Willamette University, Salem, Ore.
 William Smith College, Geneva, N. Y.
 William Woods College, Fulton, Mo.
 Williamsport-Dickinson Seminary, Williamsport, Pa.
 Wilson College, Chambersburg, Pa.
 Xavier University, Cincinnati, Ohio.
 Yankton College, Yankton, S. D.
 York College, York, Nebr.
 Y.M.C.A., New York, N. Y.
 Yuba County Jr. College, Marysville, Calif.

TABLE III

Gross Score Norms

Based on records of 56,895 students in 265 colleges.

<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>	<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>
0-9	2	.000	210-219	3380	.702
10-19	8	.000	220-229	3066	.758
20-29	26	.000	230-239	2777	.810
30-39	55	.001	240-249	2345	.855
40-49	111	.003	250-259	1825	.891
50-59	229	.006	260-269	1511	.921
60-69	459	.012	270-279	1159	.944
70-79	638	.021	280-289	887	.962
80-89	1003	.036	290-299	614	.975
90-99	1358	.056	300-309	408	.984
100-109	1663	.083	310-319	301	.990
110-119	2170	.117	320-329	174	.995
120-129	2566	.158	330-339	109	.997
130-139	2930	.207	340-349	58	.999
140-149	3225	.261	350-359	19	.999
150-159	3326	.318	360-369	12	.999
160-169	3610	.379	370-379	6	.999
170-179	3737	.444	380-389	3	.999
180-189	3751	.510			
190-199	3725	.575			
200-209	3649	.640		56895	

$$Q_1 = 143.12$$

$$M = 183.55$$

$$Q_3 = 223.43$$

TABLE IV

Completion Test

Based on norms of 15,935 students in 64 colleges.

<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>	<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>
0	5	.000	44	932	.769
2	4	.000	46	756	.822
4	3	.001	48	612	.865
6	14	.001	50	466	.898
8	24	.002	52	434	.927
10	39	.004	54	282	.949
12	59	.007	56	221	.965
14	103	.013	58	178	.978
16	168	.021	60	95	.986
18	257	.034	62	81	.992
20	370	.054	64	45	.996
22	521	.082	66	20	.998
24	621	.118	68	15	.999
26	779	.162	70	7	.999
28	918	.214	72	1	.999
30	1044	.276	74	1	.999
32	1147	.345	76	1	.999
34	1187	.418	78	2	.999
36	1239	.494	80	0	.999
38	1148	.569			
40	1152	.642			
42	984	.709			
				15935	

$$Q_1 = 30.19$$

$$M = 37.14$$

$$Q_3 = 44.35$$

TABLE V
Arithmetic Test

Based on records of 14,520 students in 63 colleges.

<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>	<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>
0	72	.002	48	562	.903
4	361	.017	52	368	.935
8	672	.053	56	301	.958
12	1156	.116	60	177	.974
16	1437	.205	64	138	.985
20	1561	.308	68	72	.992
24	1706	.420	72	44	.996
28	1602	.534	76	29	.999
32	1336	.636	80	1	.999
36	1214	.724			
40	939	.798			
44	772	.857			
				<hr/> 14520	

$$Q_1 = 17.03$$

$$M = 28.74$$

$$Q_3 = 39.25$$

TABLE VI

Artificial Language Test

Norms based on records of 15,484 students in 64 colleges.

<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>	<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>
0-1	65	.002	48-49	652	.657
2-3	21	.005	50-51	611	.698
4-5	30	.007	52-53	560	.735
6-7	48	.009	54-55	526	.770
8-9	74	.013	56-57	455	.802
10-11	105	.019	58-59	394	.829
12-13	153	.027	60-61	309	.852
14-15	196	.038	62-63	281	.871
16-17	290	.054	64-65	245	.888
18-19	309	.073	66-67	199	.903
20-21	405	.096	68-69	202	.916
22-23	453	.124	70-71	170	.927
24-25	525	.156	72-73	172	.939
26-27	587	.192	74-75	160	.949
28-29	620	.230	76-77	150	.959
30-31	677	.272	78-79	125	.968
32-33	614	.314	80-81	109	.976
34-35	684	.356	82-83	116	.983
36-37	690	.401	84-85	86	.989
38-39	670	.445	86-87	54	.994
40-41	662	.488	88-89	41	.997
42-43	663	.530	90	29	.999
44-45	668	.573			
46-47	629	.615			
				15484	

$$Q_1 = 29.96$$

$$M = 41.59$$

$$Q_3 = 53.83$$

TABLE VII
Analogies Test

Based on records of 16,081 students in 64 colleges.

<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>	<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>
0	122	.004	32	1426	.464
2	128	.011	34	1547	.556
4	222	.022	36	1593	.654
6	233	.036	38	1339	.745
8	235	.051	40	1095	.821
10	257	.066	42	811	.880
12	266	.083	44	616	.924
14	272	.099	46	389	.956
16	268	.116	48	265	.976
18	322	.134	50	145	.989
20	389	.157	52	63	.995
22	496	.184	54	31	.998
24	603	.218	56	11	.999
26	763	.261	58	2	.999
28	959	.314			
30	1213	.382			
				16081	

$$Q_1 = 26.54$$

$$M = 33.81$$

$$Q_3 = 39.16$$

TABLE VIII

Opposites Test

Based on records of 15,967 students in 64 colleges.

<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>	<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>
0	11	.000	54	825	.512
3	40	.002	57	799	.563
6	60	.005	60	866	.615
9	110	.010	63	812	.668
12	172	.019	66	801	.718
15	233	.032	69	754	.767
18	310	.049	72	696	.812
21	390	.071	75	554	.852
24	457	.097	78	505	.885
27	514	.128	81	413	.913
30	531	.160	84	355	.938
33	609	.196	87	291	.958
36	673	.236	90	217	.974
39	665	.278	93	159	.985
42	735	.322	96	99	.994
45	742	.368	99	53	.998
48	729	.414			
51	787	.462			
				15967	

$$Q_1 = 38.47$$

$$M = 54.78$$

$$Q_3 = 69.41$$

TABLE IX

Gross Score Norms of Colleges Used in Separate Test Distributions

Based on records of 14,566 students in 64 colleges.

<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>	<i>Score</i>	<i>Frequency</i>	<i>Percentile</i>
0-9	0	.000	200-209	977	.624
10-19	1	.000	210-219	884	.688
20-29	3	.000	220-229	768	.745
30-39	7	.001	230-239	760	.797
40-49	22	.002	240-249	612	.844
50-59	44	.004	250-259	504	.882
60-69	81	.008	260-269	437	.915
70-79	138	.016	270-279	301	.940
80-89	215	.028	280-289	235	.958
90-99	332	.046	290-299	164	.972
100-109	383	.071	300-309	128	.982
110-119	520	.102	310-319	78	.989
120-129	638	.142	320-329	49	.994
130-139	693	.187	330-339	38	.997
140-149	796	.238	340-349	16	.998
150-159	859	.295	350-359	7	.999
160-169	943	.357	360-369	4	.999
170-179	970	.423	370-379	3	.999
180-189	971	.489			
190-199	985	.557			
				14566	

$$Q_1 = 147.09$$

$$M = 186.57$$

$$Q_3 = 226.02$$

TABLE X

Equivalent Scores for 1934 and 1935 Editions

Based on the record of 181 colleges; 36,708 students in 1934—
39,119 students in 1935.

<i>Per- centile</i>	<i>Score 1934</i>	<i>Score 1935</i>	<i>Per- centile</i>	<i>Score 1934</i>	<i>Score 1935</i>	<i>Per- centile</i>	<i>Score 1934</i>	<i>Score 1935</i>
1	58	64	34	152	159	67	203	210
2	68	74	35	153	161	68	205	211
3	74	82	36	155	162	69	206	213
4	80	88	37	157	164	70	208	215
5	85	93	38	158	166	71	210	216
6	89	97	39	160	167	72	211	218
7	93	101	40	161	169	73	213	220
8	96	105	41	163	170	74	215	222
9	99	108	42	164	172	75	217	223
10	102	111	43	166	173	76	219	225
11	105	114	44	167	175	77	220	227
12	108	117	45	169	176	78	222	229
13	110	119	46	170	178	79	224	231
14	113	122	47	172	179	80	227	233
15	115	124	48	173	181	81	229	235
16	118	126	49	175	182	82	231	237
17	120	128	50	176	184	83	233	239
18	122	131	51	178	185	84	235	241
19	124	132	52	179	187	85	238	244
20	127	134	53	181	188	86	240	246
21	129	136	54	182	190	87	243	248
22	131	138	55	184	191	88	245	251
23	133	140	56	185	193	89	248	254
24	134	142	57	187	194	90	251	257
25	136	144	58	189	196	91	254	261
26	138	145	59	190	197	92	257	264
27	140	147	60	192	199	93	261	268
28	142	149	61	193	200	94	265	272
29	143	151	62	195	202	95	270	278
30	145	152	63	196	203	96	275	283
31	147	154	64	198	205	97	282	290
32	149	156	65	200	207	98	290	299
33	150	157	66	201	208	99	304	313

TABLE XI
Comparison of Teachers' Colleges, Junior Colleges and
Four-Year Colleges

Scores	Teachers' Colleges		Junior Colleges		Four-Year Colleges	
	Frequency	Percentile	Frequency	Percentile	Frequency	Percentile
0-9					2	.000
10-19	1	.000	3	.000	4	.000
20-29	4	.000	3	.000	19	.000
30-39	7	.000	6	.002	42	.001
40-49	20	.003	15	.004	76	.002
50-59	40	.007	28	.009	161	.005
60-69	65	.014	60	.018	334	.010
70-79	103	.026	66	.031	469	.019
80-89	180	.046	112	.050	711	.033
90-99	221	.073	141	.077	996	.052
100-109	289	.109	167	.109	1207	.076
110-119	374	.154	235	.152	1561	.107
120-129	424	.210	251	.203	1891	.145
130-139	427	.268	309	.262	2194	.191
140-149	501	.333	348	.331	2376	.242
150-159	503	.402	318	.402	2505	.296
160-169	475	.469	379	.475	2756	.355
170-179	501	.537	335	.551	2901	.417
180-189	511	.607	314	.619	2926	.482
190-199	468	.675	288	.683	2969	.548
200-209	430	.737	281	.743	2938	.614
210-219	375	.792	265	.800	2740	.677
220-229	336	.842	198	.849	2532	.736
230-239	261	.883	158	.887	2358	.790
240-249	219	.916	134	.918	1992	.838
250-259	161	.942	97	.942	1567	.878
260-269	112	.961	71	.960	1328	.910
270-279	91	.975	60	.974	1008	.936
280-289	46	.985	38	.984	803	.956
290-299	42	.991	21	.990	551	.971
300-309	20	.995	19	.994	369	.982
310-319	17	.997	6	.997	278	.989
320-329	5	.999	1	.998	168	.994
330-339	1	.999	9	.999	99	.997
340-349	3	.999		.999	55	.999
350-359			1	.999	18	.999
360-369					12	.999
370-379					6	.999
380-389					3	.999
<hr/>						
	7233		4737		44925	
	in 31 colleges		in 31 colleges		in 204 colleges	
	$Q_1=131.88$		$Q_1=133.15$		$Q_1=146.58$	
	$M=169.63$		$M=168.09$		$M=187.72$	
	$Q_3=207.23$		$Q_3=206.22$		$Q_3=227.57$	

L. L. THURSTONE,
THELMA GWINN THURSTONE,
The University of Chicago.

The Council at Work

THE Council at Work is a brief summary of the outstanding new projects in which the Council is interested, as well as a progress report on undertakings already launched. It is hoped that this survey will give to the members of the Council and those interested in its work a more intimate view of the Council's development. Individuals desiring further information regarding subjects mentioned in this section are invited to write to the offices of the American Council on Education, 744 Jackson Place, Washington, D. C.

ANNUAL MEETING OF THE COUNCIL

THE nineteenth annual meeting of the American Council on Education will be held in Washington, D. C., on Friday and Saturday, May 1 and 2, 1936. The regular sessions of the representatives of the institutional, constituent, and associate members will convene in the small auditorium of the United States Chamber of Commerce Building, 1615 H Street, N. W., which is on the corner opposite the offices of the Council.

President George F. Zook has already received acceptances from the following speakers: President Lotus D. Coffman, of the University of Minnesota; Dr. Walter M. Kotschnig, former Secretary of the High Commission on Relief of Refugees of the League of Nations; Miss Marie Butts, Executive Secretary of the International Bureau of Education at Geneva; Superintendent A. J. Stoddard of Providence, R. I.; Reverend Alphonse M. Schwitalla, S.J., Dean of the Medical School, St. Louis University; President James R. McCain of Agnes Scott College; Dr. Payson Smith, former Commissioner of Education of Massachusetts; Mr. Chester Rowell, Editor of the San Francisco Chronicle; Dr. Homer P. Rainey, Director of the American Youth Commission.

The formal dinner meeting of the Council will be at the

Mayflower Hotel on the evening of May 1. On Friday afternoon all delegates to the sessions have been invited to the White House for tea.

MEMBERSHIP

At the meeting of the Executive Committee of the Council in Washington on January 13, 1936, forty-one new institutional members were elected. At that time the first State Departments of Education were admitted to the new institutional membership class. The total membership of the Council on January 13 was as follows: constituent, 21; associate, 27; and institutional, 305. The newly elected members are:

New York State Department of Education, Albany.

Tennessee State Department of Education, Nashville.

Augustana College and Theological Seminary, Rock Island, Ill.

Bennington College, Bennington, Vt.

**California, University of, Berkeley.*

**Claremont Colleges, Claremont, Calif.*

**Converse College, Spartanburg, S. C.*

**Detroit, University of, Detroit, Mich.*

Drake University, Des Moines, Iowa.

East Central State Teachers College, Ada, Okla.

Elmhurst College, Elmhurst, Ill.

Houghton College, Houghton, N. Y.

John Carroll University, Cleveland, Ohio.

Lenoir-Rhyne College, Hickory, N. C.

Lincoln University, Jefferson City, Mo.

**Macalester College, St. Paul, Minn.*

Mercyhurst College, Erie, Pa.

Misericordia, College, Dallas, Pa.

Mount Mercy College, Pittsburgh, Pa.

North Dakota, University of, Grand Forks.

**Northeast Missouri State Teachers College, Kirksville.*

**Puget Sound, College of, Tacoma, Wash.*

Redlands, University of, Redlands, Calif.

St. Johns University, Brooklyn, N. Y.

St. Lawrence University, Canton, N. Y.

**St. Thomas, College of, St. Paul, Minn.*

*Institutions which have held membership in the Council at some time in the past.

San Francisco College for Women, San Francisco, Calif.
Southwest Missouri State Teachers College, Springfield.
State Normal School, Geneseo, N. Y.
State Teachers College, Dickinson, N. D.
State Teachers College, Indiana, Pa.
State Teachers College, Towson, Md.
*Stout Institute, Menomonie, Wis.
*Texas State College for Women, Denton.
Texas Technological College, Lubbock.
Washington College, Chestertown, Md.
Wayne University, Detroit, Mich.
West Texas State Teachers College, Canyon.
West Virginia University, Morgantown.
Western Kentucky State Teachers College, Bowling Green.
Yankton College, Yankton, S. D.

THE AMERICAN YOUTH COMMISSION

The American Youth Commission, under the chairmanship of Mr. Newton D. Baker, met in Washington in January and approved three projects which are being undertaken immediately by the staff. Grants have been made by the General Education Board for the financing of the studies. All three relate to some phase of the general plan to develop a comprehensive program for the care and education of American youth.

The first project, a study of a representative state, is being set up in Maryland with headquarters at Baltimore. The second, a survey of a representative small city, will be conducted in Muncie, Indiana. The third project, "An Inventory of Oncoming Youth," is a continuation of a study which was recently carried on in the state of Pennsylvania.

The objective of the program in Maryland is the formulation of a workable state-wide youth program. The Commission expects to survey the facilities and services available in Maryland for the care and education of youth, and to ascertain those needs of young people which present groups and institutions are not fulfilling. Following the study, the Com-

* Institutions which have held membership in the Council at some time in the past.

mission hopes to develop a broad plan and organization for state youth programs with techniques and procedures which will be applicable in other states.

The Muncie study will be similar to that in Maryland in objective and procedure, but will be limited to the situation in this typical city. The Commission is fortunate in that basic data and information regarding youth are available in Muncie from an outstanding survey conducted there eleven years ago. This will make possible the observation of changes in the status of young people during the last decade.

The "Oncoming Youth" study in Pennsylvania was inaugurated in 1932 by a Commission on Higher Education established by the State Department of Public Instruction. It provides for an inventory of youth and an evaluation of the influences to which they are subjected. The American Youth Commission will complete the survey and will also emphasize an investigation of the adequacy of the goals in education, in relation to those needs of youth which social institutions must serve in the future. The study involves the determination of the nature, types and number of educational institutions and agencies which will be required to meet present and future needs.

The Pennsylvania Commission has already gathered data on almost 30,000 young people representing a broad sampling of the state both socially and geographically. The youth comprised two groups, pupils who were in the sixth grade in the public schools in 1926-27, and those in the same grade in 1928-29.

MEETINGS OF CONSTITUENT DELEGATES

In the report of the President at the annual meeting of the Council in 1935, Dr. Zook said, "It is hoped that additional ways may be found to secure the active cooperation of all representatives from the several types of members in the Council. The success of the Council depends in no small measure on this joint attack upon common problems." In line with the move to develop greater participation of the dele-

gates of constituent members in the work of the Council, Dr. Zook and Dr. Marsh have held three informal meetings at strategic points within the past two months.

The first of these conferences was held in Chicago on February 27 with twelve representatives of delegates in that area. A second conference in Washington on March 5 brought together fourteen delegates. In New York City twelve representatives met with the officers on March 25.

The conferences provided an excellent opportunity for the interchange of experiences between the constituent members and the administrative staff of the Council. A short summary of the projects in which the Council is now engaged served as the basis of the discussion. The group also suggested fields of activity in which the Council might profitably work.

Because of the success of these informal meetings, the officers of the Council are planning to make similar meetings a regular part of the Council's program.

COMMITTEE ON MODERN LANGUAGES

The Committee on Modern Languages, under the chairmanship of Dr. Robert Herndon Fife, met in Washington on February 1, 2, and 3, 1936 in the Conference Room of the Council. A grant of \$10,000 from the Carnegie Corporation has been received to carry on the work of the Committee.

Studies now under way include a frequency count of contemporary Spanish syntax, a syntax count in French, the gathering of information in regard to research on teaching problems being carried on in various parts of the country, and an investigation of the relationship between skill in pronunciation and the identification of sounds in a foreign language and the association of such sounds with written symbols. Other members of the Committee are Drs. Algernon Coleman, V. A. C. Henmon, Hayward Keniston and J. B. Tharp.

DR. PAYSON SMITH

The Executive Committee of the Council announced the temporary appointment of Dr. Payson Smith, former Com-

missioner of Education of Massachusetts, to carry on certain special assignments in the field of secondary education. Dr. Smith will assist the Council from February 1 to October 1, 1936. He will also serve as a special lecturer in the School of Graduate Education of Harvard University during that time.

"AMERICAN UNIVERSITIES AND COLLEGES"

The Carnegie Corporation has made a grant of \$5,000 to the Council to assist in financing the cost of the publication of the new edition of *American Universities and Colleges*.

Complete copy of the 1936 edition, edited by Dr. C. S. Marsh, Associate Director of the Council, has been submitted to the printers and the greater part of the book is already in page proof. The printers estimate that the new volume will be ready for distribution early in May.

The new edition will contain exhibits covering the 678 institutions of higher education on the lists of various accrediting associations, as well as information on graduate and professional education. A feature of the new volume will be a tabulation of the doctorates by subjects awarded in the United States during the past ten years.

During the past month the Council has accepted over 500 paid pre-publication orders at the reduced price of \$3.50 per copy. On the date of publication the cost will be \$4.00. Although each member will receive a complimentary copy, orders at the pre-publication price may be placed now if an institution desires additional copies.

THE FINANCIAL ADVISORY SERVICE

Under the direction of Dr. Lloyd Morey, Chief Consultant of the Financial Advisory Service, a conference of business officers on the West Coast met at Stanford University on March 23 and 24. The meeting had as its primary purpose the development of an organization for the exchange of experiences on financial and business problems. It is expected that regular meetings of the group will be held in the future.

Mr. George E. Van Dyke, Technical Associate of the Service, has announced a similar conference of accounting officers of colleges and universities in the New England and North Atlantic states, to be held at the Hotel New Yorker, New York City, on April 24 and 25. The group will study intensively the recommendations of the National Committee on Standard Reports and discuss their adaptation to practical situations. A round-table discussion will enable the accounting officers to speak informally on problems dealing with the business administration of institutions of higher education.

The facilities of the Financial Advisory Service have been made available to a number of investigations in various institutions and systems. A study of the accounting and reporting methods of the six state-supported institutions under the supervision of the Department of Education of Tennessee is now under way. Other institutions have submitted charts of accounts, office manuals and accounting forms to the Service for criticism.

MOTION PICTURES IN EDUCATION

The cooperative educational film survey being conducted by the American Council on Education and the U. S. Office of Education has obtained detailed information on approximately 3,500 films available in this country. The listing cards are being checked by the H. W. Wilson Company, 950 University Avenue, New York City, for inclusion of selected films for its *Catalog of Educational Films* which will be issued the latter part of April. The other cooperating agencies plan to issue special mimeographed lists of the films available in special subject fields.

The annotated bibliography of the literature in the field of visual education, which is being compiled by Fannie W. Dunn and Etta Schneider of Teachers College, Columbia University, has progressed to the point where the first mimeographed booklet of 86 pages has been given limited circulation among leaders in the visual field. The purpose of this trial circula-

tion is to ascertain whether a summary of the literature dealing with a selected topic is more valuable to school administrators and research workers than a more inclusive treatise on the data.

The handbook of administrative practices as discovered by recent visits by staff members of the Council to visual instruction centers in the United States will be issued in mimeographed form during April. This report aims to make known many of the practical ideas that are in use in various school centers.

NATIONAL CONFERENCE ON EDUCATIONAL BROADCASTING

Officers of the Council have met with representatives of several other organizations interested in better use of radio in education and have helped to develop plans for a National Conference on Educational Broadcasting, to be held in Washington, D. C., December 10, 11, and 12, 1936, at the Mayflower Hotel. The tentative program, unusually broad in its interests, will include eminent speakers from other countries. Ample time for many discussion groups will be scheduled.

The conference is arranged in cooperation with the Federal Communications Commission and the United States Office of Education, and is sponsored by the following organizations: the American Association for Adult Education, the American Council on Education, the American Farm Bureau Federation, the General Federation of Women's Clubs, the Jewish Welfare Board, the International Council of Religious Education, the Institute for Education by Radio, the Institute of Radio Engineers, the National Advisory Council on Radio in Education, the National Association of Educational Broadcasters, the National Committee on Education by Radio, the National Catholic Educational Association, the National Congress of Parents and Teachers, the National Education Association, the National Grange, the Progressive Education Association, the Women's National Radio Committee, and the Workers Education Bureau.

COMMITTEE ON REVIEW OF THE TESTING MOVEMENT

The Committee on Review of the Testing Situation, under the chairmanship of President R. A. Kent of the University of Louisville, has held four meetings in the last several months. At conferences in New York, Washington and Chicago persons interested in the development and use of various methods of evaluation have appeared before the Committee. The following individuals are among those who have discussed certain phases of the testing movement:

A. B. Crawford, Yale University.
H. R. Douglass, University of Minnesota.
E. S. Jones, University of Buffalo.
C. H. Judd, University of Chicago.
Truman L. Kelley, Harvard University.
Fred Moss, George Washington University.
A. B. Meredith, New York University.
E. L. Thorndike, Columbia University.
L. L. Thurstone, University of Chicago.

Dr. F. S. Beers, Executive Secretary of the University System of Georgia, has served as secretary of the Committee.

CONFERENCES AND MEETINGS

The Council has been represented at the following meetings since January 1:

American Association of Dental Schools, Louisville, Ky.
American Association of Junior Colleges, Nashville, Tenn.
American Association of Teachers Colleges, St. Louis, Mo.
American Educational Research Association, St. Louis, Mo.
Association of American Colleges, New York City.
American Council of Learned Societies, Washington, D. C.
Conference on Rural Education, New Orleans, La.
Congress on Medical Education and Licensure of the American Medical Association, Chicago, Ill.
Department of Superintendence of the National Education Association, St. Louis, Mo.
National Committee on Education by Radio, Washington, D. C.
Progressive Education Association, Chicago, Ill.

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The American Council on Education

The Nineteenth Annual Meeting

THE largest number of delegates in the history of the American Council on Education took part in its nineteenth annual meeting which convened in Washington, D. C., on Friday and Saturday, May 1 and 2, 1936. More than three hundred delegates, representing the Constituent, Associate, and Institutional members, as well as guests from the various foundations, governmental departments, and associations interested in the Council's work, attended the sessions in the small auditorium of the United States Chamber of Commerce Building.

Dr. L. D. Coffman, president of the University of Minnesota and chairman of the Council for 1935-36, presided at the regular meetings. At the opening session, the Reverend George Johnson, general secretary of the National Catholic Educational Association and secretary of the Council, read the minutes of the eighteenth meeting.

Dr. George F. Zook, president of the American Council on Education, read the first paper, *The Annual Report of the President*, which is printed in full in this issue.

The second speaker, Dr. A. J. Stoddard, superintendent of schools of Providence, R. I., chose as his subject *Planning Educational Progress*. Dr. Stoddard, who is chairman of the Educational Policies Commission of the National Education Association, reported the progress of the Commission.

The last speaker on the morning program was Dr. James R. McCain, president of Agnes Scott College and newly elected president of the Association of American Colleges. He addressed the Council on the subject *Regional Cooperation in Higher Education*.

The delegates and visitors were guests of the Council at a buffet luncheon at the Cosmos Club.

The afternoon session opened with a paper, *Trends in*

Professional Education, by the Reverend Alphonse M. Schwitalla, S.J., dean of the School of Medicine, St. Louis University, and president of the North Central Association of Colleges and Secondary Schools.

Dr. Payson Smith, former commissioner of education of the Commonwealth of Massachusetts, and now temporarily associated with the Council, spoke on *Some Current Issues in Teacher Education*.

The afternoon session ended with an address by Dr. L. L. Thurstone of the University of Chicago on *A New Conception of Intelligence*. Dr. Thurstone is author of the psychological examinations which the Council has published for many years.

On Friday afternoon at five o'clock, the delegates were guests of President and Mrs. Franklin Delano Roosevelt at tea at the White House. Mrs. Roosevelt, with Dr. and Mrs. Zook and Dr. and Mrs. Marsh, received the guests. The President talked to the group informally.

That evening the annual dinner of the Council was held in the Garden Room of the Mayflower Hotel. Dr. Edward C. Elliott, president of Purdue University, presided as toastmaster. He introduced Dr. Coffman, who delivered his Chairman's address, *A Special Plea for Education*, and the Honorable Elbert D. Thomas, Senator from Utah and former professor at the University of Utah, who spoke on *The Relation of Government to Education*. Music was furnished by the Male Chorus of the Educational Radio Project of the United States Office of Education.

The second day of the meeting opened with the report of Dr. Homer P. Rainey, director of the American Youth Commission of the American Council on Education. Dr. Rainey's address was entitled *The Care and Education of American Youth*.

Miss Marie Butts, executive secretary of the International Bureau of Education at Geneva, spoke on *Recent Trends of Education in Europe*.

Confusion and Compromise in Education was the sub-

ject of an address by Dr. Beardsley Ruml, treasurer of R. H. Macy and Co., New York. Dr. Ruml was formerly associated with the Laura Spelman Rockefeller Memorial.

The last formal paper on the program was *The Committee on Problems and Plans in Education: A Summary, 1930-1936*, prepared by Dr. S. P. Capen, chairman of that group. In his absence the paper was read by Dean William F. Russell of Teachers College, Columbia University.

The business session of the Council followed.

Upon recommendation of the Executive Committee, the office of Second Assistant Treasurer was established with such duties as may be assigned to him by the Treasurer.

The following amendments to the Constitution, recommended by the Executive Committee, were approved. The changes are underscored.

3. MEMBERSHIP . . . *Institutional Members*: This group shall consist of colleges, universities and professional and technical schools of similar grade, State Departments of Education, and of other organizations and institutions of high standing that carry on educational activities or cooperate with educational institutions in improving instruction or administration. . . .

5. OFFICERS . . . The Council shall also elect a salaried President who shall be the chief executive officer. He shall have general administrative supervision of the affairs of the Council and shall be responsible for the carrying out of such plans and policies as the Council or its executive committee may approve. He shall be *ex officio* a member of all standing committees. He shall report annually to the Council, and shall make such other reports as the Chairman of the Council may request.

6. EXECUTIVE COMMITTEE: There shall be an Executive Committee consisting of nine members, eight selected from the representatives of the constituent and institutional organizations, and the United States Commissioner of Education *ex officio*. The Chairman and Secretary of the Council shall be Chairman and Secretary, respectively, of the Executive Committee. The remaining six members shall be elected by the Council, two at each annual meeting to serve for a three-year term. The Executive Committee shall hold meetings at

least quarterly, and shall report its actions to the members of the Council after each meeting.

In case a member of the Executive Committee shall fail to attend (or to designate an alternate) at two meetings of the Executive Committee, he shall cease to be a member thereof. In case of a vacancy on the Executive Committee, the Committee shall have power to fill the vacancy until the next meeting of the Council.

All appointments to the staff of the Council shall be approved by the Executive Committee, upon nomination by the President of the Council.

9. BUDGET: The Executive Committee shall present a budget each year at the Annual Meeting and no financial obligation shall be incurred by any officer or committee except as authorized by the Council or the Executive Committee. The fiscal year of the Council shall close on June 30.

11. COMMITTEE APPOINTMENTS: The Council and the Executive Committee may appoint special committees. All committee appointments shall expire June 30, with right to re-appointment. The members of committees may be selected from the members of any institutions associated with one of the organizations constituting the Council. Chairmen of committees shall be invited to sit with the Council, without right to vote.

On joint nomination of the Problems and Plans Committee and the Executive Committee the following were elected to membership in the Problems and Plans Committee:

Class of 1939

Dr. Payson Smith, Harvard University.

Class of 1940

Dr. Charles H. Judd, University of Chicago.

Dr. Paul Mort, Teachers College, Columbia University.

Dr. George Stoddard, State University of Iowa.

The Treasurer's report and the budget for 1935-36 were submitted in writing and were approved.

The report of the Committee on Nominations was presented by Dr. Henry M. Wriston, president of Lawrence College. The Secretary was instructed to cast a unanimous ballot for the nominees, who were duly declared elected as follows:

Chairman: Dr. Raymond A. Kent, president, University of Louisville.

First Vice-Chairman: Dr. Gerald D. Timmons, School of Dentistry, Indiana University; representing the American Association of Dental Schools.

Second Vice-Chairman: Dr. Frank P. Graham, president, University of North Carolina.

Secretary: The Reverend George Johnson, Catholic University; representing the National Catholic Educational Association.

Treasurer: Mr. Corcoran Thom, president, American Security and Trust Co.

First Assistant Treasurer: Mr. Frederick P. H. Siddons, secretary, American Security and Trust Co.

Second Assistant Treasurer: Mr. James C. Dulin, Jr., treasurer, American Security and Trust Co.

EXECUTIVE COMMITTEE

For three years: Dr. Shelton Phelps, president, Winthrop College. Dr. Louis R. Wilson, dean of the Graduate Library School, University of Chicago, representing the American Library Association.

*For two years:** Dr. Kathryn McHale, general director, American Association of University Women. Dr. Sidney B. Hall, State Superintendent of Public Instruction of Virginia, representing the National Education Association.

For one year: Dr. Edward C. Elliott, president, Purdue University. Dr. Cloyd H. Marvin, president, George Washington University.

After a short speech of acceptance by the new chairman, Dr. Kent, the nineteenth annual meeting of the American Council on Education adjourned.

* Elected to fill the unexpired term of Dr. R. M. Hughes, who resigned.

Report of the President of The American Council on Education

I DOUBT whether there is any general agreement on what should be included in the annual reports of presidents. In any sense to standardize them would be to debase them. It seems desirable, however, for a particular executive to follow a consistent policy in this questionable area. I have an aspiration to make my annual report, as long as there seems any place for it, a revealing document; first, relative to the major activities in which the Council has engaged, and secondly, concerning some of the matters about which, in my opinion, American educators ought to be thinking.

It is exceedingly desirable that we should keep in the forefront of our minds the central aspiration, not by any means thoroughly recognized as yet, that the American Council on Education is a council in which the representatives of important educational associations and institutions consider together basic problems of common or major concern to American education. The Council was never intended, therefore, to supplant its several member associations and institutions. Each of them continues to bear its own individual responsibilities. The Council indeed belongs to its members. It is their device for considering overlapping and fundamental educational problems and for cooperative action.

The Council was established in 1918 as a coordinating center largely for higher education and higher institutions. Through amendments to the Constitution and by actions of the Executive Committee, the Council has gradually become truly comprehensive in its outlook and activities. During the current year, for example, the privileges of institutional membership have been extended to all teachers colleges on the accredited list of the American Association of Teachers Colleges, to all state departments of education, and to all public school systems located in cities of 200,000 or more population.

This extension of membership privileges, together with the reduction in fees for Institutional members and the varied activities of the Council, has resulted during the year in a very gratifying increase in membership. The membership situation today as against that reported a year ago is as follows: Constituent members, composed of national and regional educational associations, increased from 26 to 28; Associate members, comprising organizations interested in various aspects of education, increased from 19 to 24; Institutional members increased from 225 to 323; total increase from 270 to 375. Among the Institutional members are now included for the first time four state departments of education—New York, Tennessee, Utah and Virginia; and six public school systems in the cities of Akron, Baltimore, Indianapolis, Rochester (New York), St. Paul, and St. Louis.

The membership situation has indeed improved to a greater extent than these figures indicate. Certain Institutional members which were delinquent in dues have settled their accounts. This fact, together with the increase in membership, resulted in the astonishing error of 87.7 per cent in actual receipts from this source of revenue as against last year's budget estimate. I doubt whether we can anticipate any such gratifying error in the future.

Due to the unusual increase in membership of the Council it has been possible to complete the fiscal year with an expenditure of only \$39,726 from the fund of \$300,000 appropriated two years ago by the General Education Board for the overhead expenses of the Council. The budget which is being presented to you for the ensuing year's operations is somewhat larger than that of the past year, caused chiefly by a modest but necessary increase in the staff and by possible extra expenses in the development of the Council's program in mental tests. I believe, however, that the budget is along sound and conservative lines.

GRANTS

During the year the Council has been fortunate in securing from the various foundations a number of special grants with

which to carry forward various projects. Most of them will be described in other portions of this report. For your convenience they are summarized here as follows:

From the General Education Board for:

The Federal Arts Project through the Works Progress Administration	\$ 25,000.00
The American Youth Commission.....	105,410.00
The Financial Advisory Service to Colleges and Universities	10,000.00
Educational Motion Pictures.....	12,500.00
Work Among the Pueblo Indians through the U. S. Bureau of Indian Affairs.....	5,000.00
The Work of the Cooperative Committee on Secondary School Standards.....	116,000.00

From the Carnegie Corporation for:

<i>Handbook of American Universities and Colleges</i> (3rd Edition).....	5,000.00
Committee on Modern Languages.....	10,000.00

From the Regional Accrediting Agencies for the Work of the Cooperative Committee on Secondary School Standards

4,184.80

Total \$293,094.80

In return for membership dues the Council engages primarily in a general program of research and promotion of interest to its various members. On the other hand, it also endeavors to render as many direct services as possible to its members, including the publication of the EDUCATIONAL RECORD. During the past year we have endeavored not only to improve the general tone of the articles which have been printed in the RECORD but also to include therein notes concerning some of the major activities in which the Council is engaged.

Some time ago Brody's book entitled *The American State and Higher Education* was distributed to the members. In addition to the copies distributed gratis, there has been a gratifying sale of the book. Dr. Chambers' comprehensive, yet concise, statement concerning the organization of the state departments of education is ready for distribution. It will

merit, I am sure, an enthusiastic reception among those who are interested in this important phase of educational administration. There will shortly come from the press a very important book, the contribution of the Council's Committee on a Manual of Examination under the leadership of Dean Hawkes of Columbia University. The book is entitled *The Construction and Use of Achievement Examinations*. I am confident that you will find it very interesting and helpful.

In 1933 the Council published two volumes produced by the National Survey of School Finance, which was headed by Dr. Paul R. Mort, of Teachers College, Columbia University. You will perhaps remember that this survey was completed through the aid of a subvention from the General Education Board when Congress failed to pass the necessary appropriations. One of the volumes, *Research Problems in School Finance*, was reprinted in 1933. The other volume, *State Support for Public Education*, has recently been reprinted in an abridged form. The reprinting of both the volumes has been made possible by returns from the sales of the original edition. The price of the abridged edition of *State Support for Public Education* is \$1.25, as against a price of \$2.00 for the original edition.

The Council's Committee on Government and Educational Finance has made possible the issuance of a volume entitled *The Economic Ability of the States to Finance Public Schools* by Leslie M. Chism. Dr. John K. Norton, chairman of the Committee, has aided Mr. Chism by helpful suggestions and criticism, and the Committee financed the major part of the cost of publishing the study. The volume is now available for distribution by the Bureau of Publications of Teachers College, Columbia University, and sells for \$1.85.

Finally you will have on your desks in a few days the third edition of *American Universities and Colleges*. Dr. C. S. Marsh, associate director of the Council, follows very worthily as the editor in the footsteps of his predecessors, Dr. Robertson and Dr. MacCracken. As I am sure you are aware, the book is known, not only in America but throughout the

world, as the most concise and authoritative statement available relative to higher education and higher institutions in the United States.

For some time it has been evident that the annual meeting of the Council provides an inadequate opportunity for the delegates of the several types of memberships represented in the Council to confer on problems of mutual interest and to formulate policies relating to them. Our membership is too large for that purpose. In this respect it differs materially from its sister organizations, the National Research Council, the Social Science Research Council, and the American Council of Learned Societies. Hence the necessity in our organization of a Problems and Plans Committee, the members of which have given most generously of their time to the major problems in education which have engaged the interest of the Council.

On the other hand, it seems eminently appropriate and desirable that there should be closer relations among the members of the Council. During the last year the delegates of the Constituent members have been urged to communicate their suggestions to the officers of the Council. Following this request, it was my pleasure to meet the delegates of the Constituent members in three luncheon conferences which were held, respectively, in Chicago, Washington, and New York. This new procedure for obtaining and understanding the needs and opinions of the great variety of interests represented in the Council seemed to me quite worth while, but it is only the beginning of a procedure which should be emphasized and expanded.

COMMITTEES

The Council's chief agency for the consideration of major policies is the so-called Problems and Plans Committee. During the year this Committee and its subcommittees have been very active. Inasmuch as a résumé of this Committee's activities over the past six years of its existence is to be given later by Dr. Capen, who has served continuously as its chairman, I shall not elaborate on its work. I wish, however, to re-

affirm my conviction stated to you a year ago that the Council could not possibly operate without this important means of considering policies and plans of vital importance to the field of education.

Since the last meeting of the Council, the Committee on Academic Costume, F. C. Ferry, chairman, having completed and published a very useful statement relative to academic costume, has been discontinued.

Two new standing committees have been established as follows: The American Youth Commission, Newton D. Baker, chairman; Committee on Modern Languages, Robert H. Fife, chairman. Also the Committee on the Relation of Emotions to the Educative Process, formerly a subcommittee of Problems and Plans, has become a standing committee of the Council.

The American Youth Commission has completed its organization by electing Newton D. Baker as chairman, Owen D. Young as vice-chairman of the Commission and chairman of the Executive Committee, and Homer P. Rainey, formerly president of Bucknell University, as director of the staff. Inasmuch as Dr. Rainey will speak later regarding the development of the Commission's work, I shall not attempt any résumé of its activities and plans.

I wish, however, to express my deep satisfaction at the fine quality of civic leadership which is represented in the membership of the Commission and in the spirit with which the entire problem is being attacked by the members of the Commission and the staff. I believe that we can look forward confidently to a straightforward, comprehensive attack in the whole realm of the care and education of American youth.

THE COMMITTEE ON MODERN LANGUAGES

The Committee on Modern Languages, Professor Robert H. Fife, chairman, established last year, is the lineal descendant of several outstanding efforts in modern foreign languages under the Council's auspices.

Its immediate predecessor was the Committee on Modern

Language Teaching which itself was created to complete the publication of the notable studies carried on under the American and Canadian committees on modern languages, known generally as the Modern Foreign Language Study. The Committee on Modern Language Teaching completed its work in 1934 after having published ten volumes covering the modern language investigations (1925-28) and two supplementary volumes, one of which, entitled *Experiments and Studies in Modern Language Teaching*, contained a final report of the Committee's operations during the period of its existence, from 1928 to 1934.

The new Committee established in 1935 has received grants totaling \$15,000 with which to continue a number of important projects. A Spanish syntax frequency study undertaken by the previous committee is ready for publication. With the new appropriations, syntactical studies in French and German, requiring several years for completion, have been begun. The Committee has also under preparation an analytical bibliography on the teaching of the modern languages covering the period 1933-37, a continuation of a similar work issued in 1933 which covered the preceding five years. Through one of its members the Committee has also made arrangements to carry on certain experimental work relative to the relationship between skill in pronunciation and skill in identifying sounds of a foreign language, and in associating these sounds with the written symbols.

The Committee has given considerable attention to the test situation in modern foreign languages. It will be remembered in this connection that the previous Committee was responsible for the development and publication, through a commercial publisher, of certain achievement tests in modern foreign languages. The present Committee is now engaged in completing the standardization of college reading tests in French and German designed to test "reading ability" in these languages as a requirement for college graduation. After considerable discussion the present Committee has taken the position that until additional researches have been completed, par-

ticularly the French, German, and Spanish syntactical studies, it is unwise to add further tests of college and secondary school achievement to those now available. This is an interesting and perhaps significant point of view which has been brought to the attention of the subcommittee of the Problems and Plans Committee appointed to review the entire test situation.

Finally, the present Committee has broadened its interests to include the distribution of an English word list which had been prepared earlier by the chairman of the Committee and several other British and American scholars. It is believed the list will be especially valuable in teaching English to non-English speaking peoples.

EDUCATION AND LAW CONFERENCE

The joint committee of the American Council and the Education and Law Conference, C. R. Mann, chairman, following a two-day session of the committee in December, drew up a statement emphasizing the need for establishing appropriate educational facilities for all types of young people as the best means of individual development and the prevention of crime. For this purpose the Committee suggests a new type of community organization to be known as the Career Institute. It also recommends the creation of a continuing federal agency to advise Congress on matters affecting education and welfare. A bill providing for such an agency was introduced into Congress by Senator Copeland on February 20, 1936, and hearings have recently been held relative to it before a subcommittee of the Senate Committee on Education and Labor. As has been made clear by the chairman of the Committee the Council has taken no position regarding this bill.

COMMITTEE OF NATIONAL LEGISLATION

In his annual report released a few weeks ago, President James R. Angell of Yale University made the following arresting statement:

It should occasion no surprise that the revolutionary forces which are abroad in the world should have exercised a profound influence on the universities. In fact it could hardly have been otherwise.

That the American university is in any peril has not as yet come fully home to our people, but no thoughtful observers can fail to remark sinister trends whose ultimate implications are utterly destructive, and especially to the endowed institutions.

These influences are manifested in part by attacks upon freedom of thought and speech for members of the faculties, and in part by assaults upon financial stability, whether reflected in the effort to levy destructive taxes upon the educational property of these institutions, or in the withering imposts placed upon testamentary estates and the crushing taxes upon income, both involving consequences of the most serious kind for the endowed institution.

The Committee on National Legislation, President Cloyd H. Marvin, chairman, has been giving a great deal of attention to what amounts to the implications of this statement, in so far as they relate to the policies of the federal government. The continued chain of bills in Congress which affect the fortunes of the privately controlled institutions presents a serious situation. It seems desirable, therefore, to call attention to some of the details.

The original bill levying income and excess profits taxes introduced into Congress last year did not permit corporations to make direct contributions to charitable and educational institutions. Naturally the bill aroused a storm of criticism. After considerable discussion, the bill was amended to enable a corporation to deduct from its gross income "contributions or gifts made within the taxable year to or for the use of a domestic corporation . . . or foundation, organized and operated exclusively for religious, charitable, scientific, literary, or educational purposes . . . to an amount which does not exceed 5 per centum of the taxpayers net income." Thus a situation which was perhaps of greater interest to the community chests and charitable organizations than to educational institutions was changed so as to operate in effect as an induce-

ment to make such gifts up to 5 per cent of their net income.

Of far greater importance, however, to educational institutions was the fact that the bill in its original form did not contain the traditional provision exempting gifts and bequests from taxation. For example, the federal estate tax act of 1921 provided that "The amount of all bequests . . . to or for the use of any corporation organized and operated exclusively for religious, charitable, scientific, literary or educational purposes" shall be deducted from the value of the gross estate for the purpose of determining the tax value of the net estate. The federal gift tax act of 1924, which authorized federal taxes on gifts and contributions, contained the same exemption when the gift or contribution was made to "any corporation organized and operated exclusively for religious, charitable, scientific, literary or educational purposes."

In inserting these provisions in the federal laws, Congress followed a precedent set many years earlier in most states in the Union. Hence it came as something of a shock to the educational institutions of the country that Congress should consider a bill levying new rates on gifts and bequests which for many years had been commonly exempted from taxation in both federal and state laws.

Happily, after valiant efforts by the Council's Committee and others, both houses of Congress accepted an amendment providing the traditional exemption from taxation of gifts and bequests made to non-profit charitable and educational corporations. It was a victory of no mean consequence to all types of colleges and universities both public and private. President Guerry, of the University of Chattanooga, made the following statement relative to this matter:

In my opinion it would be a calamity of the first magnitude if gifts and bequests to educational institutions or to charitable institutions be taxed. It would mean the elimination of many such institutions in the course of time. It is difficult enough as it is now for us to maintain ourselves. If the Federal Government decides to penalize us further it will make our lot a very hard one.

Then came the Social Security Bill, which proposed to levy an excise tax equal to the following percentages of the total wages payable by every employer, for the calendar year 1936, 1 per cent; 1937, 2 per cent; 1938 and thereafter, 3 per cent. Employees were to pay an income tax during the calendar years 1937-39, inclusive, of 1 per cent; 1940-42, 1½ per cent; 1943-45, 2 per cent; 1946-48, 2½ per cent; 1949 and thereafter, 3 per cent.

Again there was a storm of protest, although this time there was more division of opinion. Many representatives of the social agencies, some of whom had been instrumental in promoting the bill, naturally did not feel that they themselves should seek exemption from its provisions. On the other hand, the colleges and universities, while not opposed to the bill in general, were almost unanimously of the opinion that along with a number of other groups they should be exempted from the tax levies and benefits provided in the bill.

Accordingly the Council's Committee on National Legislation appeared before the Senate Committee on Finance on February 15, 1935, with a formal statement, pointing out that the publicly controlled schools and colleges were already exempted from the provisions of the bill and that unless the privately controlled schools and colleges were given similar treatment an unfair and unwise disparity between the two types of institutions would result; secondly, that many privately controlled institutions had already developed annuity systems for their employees through the Teachers Insurance and Annuity Association, or otherwise, which were regarded as more satisfactory than the federal system and from which they could not withdraw; third, that as far as the unemployment aspects of the bill were concerned, there was not in schools and colleges anything like the usual turn-over in employment growing out of economic or industrial changes; fourth, that privately controlled schools and colleges, not being commercial organizations, had no way to recoup the sums paid out in taxation—they could therefore only pay such taxes from other parts of their budgets, including the amount set aside for the payment of salaries; and finally, that the imposition of such a tax on

privately controlled institutions, even for so worthy a purpose, was a departure from a traditional policy of tax exemption long pursued by both federal and state governments.

Fortunately, the arguments presented by the Council's Committee and others prevailed, and the Social Security Act as finally passed by Congress and signed by the President provided that the term employment as used in the act should not include the following:

Service performed in the employ of a corporation, community chest, fund, or foundation, organized and operated exclusively for religious, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals, no part of the net earnings of which inures to the benefit of any private shareholder or individual.

The several provisions of the Social Security Act are being accepted by a large number of states in the Union. In every instance, so far as I know, the exemption relative to charitable and educational institutions found in the federal law has been included in the state laws.

On the other hand, you may be interested to know that, when the unemployment compensation act applying specifically to the District of Columbia was passed, it did not contain the above exemption. Since that time the law has been so amended as to exempt the churches and educational institutions. Other charitable and educational organizations in the District of Columbia, including the American Council on Education, the main force in securing the exemption for educational institutions and organizations in the rest of the country, are subject to the taxes imposed by the law. During the present calendar year it is estimated that the tax will cost the Council and its affiliated organizations approximately \$1,000; in 1937 the tax will cost us twice this amount and in 1938 three times this sum. I regret to say that I see no benefits to the employees of the Council comparable to the taxes which the Council will be required to pay.

And now comes the present revenue bill in Congress supplanting the existing tax provisions on corporations and on individual incomes. As in the present laws, the income of

educational and charitable organizations is exempt from taxation. Also at present corporations and individuals may deduct gifts to educational and charitable institutions up to 5 per cent and 15 per cent, respectively, of their net incomes. Thanks to the efforts already made, there seems no occasion for apprehension along these traditional lines.

The distinguishing feature of the present bill is the tax on the undistributed net income of business corporations. I shall not, of course, attempt any general evaluation of the merits of this proposal. It seems clear, however, that any legislation which affects the size of the undistributed income of these corporations will have a definite effect on the market value of and perhaps the income from corporate securities in which colleges and universities have largely invested their endowments. Naturally the colleges are interested and perhaps apprehensive.

I have cited the course of federal legislation relative to tax measures during the past year, first to show that the traditional exemptions for colleges and universities have several times been in real jeopardy and, secondly, to give chapter and verse concerning the possible effect of these measures upon the financial stability and fortunes, particularly, of the privately controlled colleges and universities. The higher institutions must expect, of course, to share in the ups and downs of economic life. They and the members of their staffs have given ample evidence of their willingness to make common sacrifice with all other institutions and individuals. On the other hand, it is equally clear that higher taxes on gifts, bequests and individual incomes, even though there may be exemptions in favor of charitable and educational organizations, will undoubtedly greatly affect the annual flow of these sources of financial support to the colleges and universities. Coupled with this situation is the lowered income of higher institutions from corporate securities now held by these institutions. The effects of the depression indeed on the life and fortunes of the higher institutions are not only severe but they will be of long duration. Yet they are the guardians of a great heritage as much needed in this troubled world today

as during any time in the world's history. It is therefore the part of wisdom and prudence to see that the opportunity to continue so great service remains unimpaired.

TESTS

A very active subcommittee of the Problems and Plans Committee has been making a comprehensive review of the test situation, including the two ventures which for some time have been carried on under the auspices of the Council, namely, the Cooperative Test Service and the American Council Psychological Examinations. The results and recommendations of this study will be reported to you at a later time. Suffice it to say now that if they are carried out they bid fair to make even more significant than at present the Council's contributions in this field which all agree is so basic to educational progress.

Last year I brought to your attention some of the major facts concerning the Cooperative Test Service. You may not be so well acquainted with the development of the psychological examinations. This venture was begun in 1924 by a grant of \$5,000 from the Commonwealth Fund. Since that time the tests have been entirely self-supporting even though the price has been steadily reduced from \$9.00 per hundred to \$8.00, and later to \$7.00. Originally the examinations were intended for use in higher institutions only. Beginning with 1933, however, separate forms of the examinations have been prepared for the high schools. In the past twelve years the number of psychological examinations printed and distributed has been as follows:

1924—	50,000	1930 —	200,000
1925—	60,000	1931 —	200,000
1926—	80,000	1932 —	185,000
1927—	105,000	1933*—	238,000
1928—	120,000	1934†—	235,000
1929—	138,000	1935‡—	239,000
Total—1,850,000			

* Includes 52,000 Psychological Examinations, Grades 9-12—1933.

† Includes 30,000 Psychological Examinations, Grades 9-12—1934.

‡ Includes 10,000 Psychological Examinations, Grades 9-12—1935.

As was made clear in a recent report, the 1935 edition of the psychological examination was ordered by 493 higher institutions throughout the country. Two hundred and sixty-six of the colleges reported scores for 58,402 students. For the first time a considerable number of teachers colleges and junior colleges reported scores, thus enabling the Council to prepare separate distributions for them.

In the meantime Professor L. L. Thurstone, who has been in charge of this aspect of the Council's work, announces that he has succeeded in isolating a number of primary mental abilities. Hereafter, therefore, instead of using a single intelligence quotient, it should be possible to describe the mental endowment of a child in a profile of at least seven distinct mental abilities such as number facility, perceptual speed, visualizing ability, memory, word fluency, induction and deduction. I am sure that you will realize immediately what a remarkable improvement this development will bring about in the field of testing.

THE FINANCIAL ADVISORY SERVICE

Shortly after the annual meeting last year the Council received a grant of \$10,000 with which to set up experimentally for one year a financial advisory service. Mr. Lloyd Morey, comptroller of the University of Illinois, became chief consultant and Mr. George E. Van Dyke, technical associate on full-time basis. Activities began September 1, 1935. During the seven months in which the Service has been in operation, attention has been centered particularly on the promotion of the plan of accounting and reporting recommended in the splendid report of the National Committee on Standard Reports for Institutions of Higher Education. Higher institutions receiving announcements of the Service were requested to submit copies of their financial reports and encouraged to invite comments. Already about 250 institutions have submitted reports and approximately 100 asked for and have been furnished comments on them. Personal visits have also been made to a number of institutions for the purpose of helping them to reorganize their accounting

systems to conform to the principles of accounting suggested by the National Committee.

A considerable number of projects calling for research and publication have been laid out in response to evidence of need for such studies. Several of these have been published in the *Educational Business Manager and Buyer* and the *Journal of Higher Education*. Mr. Morey and Mr. Van Dyke have also given a number of addresses before higher educational associations and other organizations.

Regional conferences of the officers in colleges and universities who are responsible for the accounting functions are being undertaken. One such conference was held on April 24 and 25 in New York City, at which approximately fifty institutions of the New England and North Atlantic states were represented. The business officers of the institutions in the South Atlantic states have asked for a similar conference to be held next year in connection with their annual meeting. In March a conference of business officers of thirty-seven higher institutions on the Pacific Coast resulted in the organization of a regional association for college and university business officers in that area similar to others already found in the eastern and southern and midwestern areas.

Finally numerous requests for information have been received and answered on a wide variety of subjects, such as depreciation, faculty housing, unit costs, student loan funds, the preparation of the budget, insurance on buildings and equipment, and faculty retirement plans.

It seems evident, therefore, that the Financial Advisory Service on a very modest budget has met a real need among the colleges and universities. I hope that it may prove possible to continue it.

MOTION PICTURES

Last year at this time I suggested the very great need for a national clearing house which should promote the use of motion pictures in organized education. It has not proved possible as yet to establish such an organization. However, the Council has been able to get under way certain preliminary

projects which have already proved to be very useful. These projects are as follows:

1. The preparation of a complete catalog of educational films in the United States. Approximately 3,000 films of more or less educational value have already been listed. There are, perhaps, 2,000 others. The cards have been classified according to the Dewey Decimal Library System. The first results of this survey are included in an educational film catalog to be issued shortly by the H. W. Wilson Company of New York. This will be a cumulative catalog to be kept up-to-date with at least semi-annual issues. Each title includes certain pertinent information about the film but no evaluation of it.

2. The preparation of a digest of books and articles relative to the use of motion pictures in education. In such a new field of education the literature is scattered and frequently of little value. That which is helpful needs to be assembled and evaluated. Fortunately, Dr. Fannie Dunn of Teachers College, Columbia University, had begun a comprehensive project along this line. The Council is assisting in planning and financing this work. More than 3,000 sources have been indexed and the digesting and summarizing of this material has begun. An experimental edition of a mimeographed booklet containing digests in one field, namely, *The Administration of Visual Aids*, has been circulated for criticism. The material for a second booklet covering the literature on Teacher Training Courses is in manuscript form. Several others are in various stages of preparation. When the project is completed we shall have a concise but comprehensive summary and digest of all the literature of any value in this field.

3. A study of the practical methods of setting up and administering visual aid programs in the school system. Many teachers and educational advisers aspire to the use of motion pictures and other visual aids in school work, but they do not know where to begin or what is the nature of the problems which they must be prepared to meet. Even those who have been using them in some limited way often know little about the experience of others in their use. It therefore seems quite

desirable to prepare a handbook which is intended to answer many of the practical questions which confront school administrators who are either engaged in a visual program or who contemplate setting up such a program. All of our work must be aimed to give maximum assistance to those who are engaged in actual school work.

4. A national survey of visual instruction in elementary and secondary schools. This project is being carried out in cooperation with the United States Office of Education. In this survey information is being secured relative to the number of school buildings equipped with electricity, the types of equipment in use in the various grades and the extent of use of the various types of visual aids. When this study is completed our information along this line should be comprehensive and exhaustive.

5. The establishment and operation on an experimental basis of one committee in a selected field of subject matter to make a thorough study of the film situation in that field. Fortunately, there existed one such committee ready for action, namely, the Motion Picture Committee of the National Section on Women's Athletics of the American Physical Association of which Miss Gladys E. Palmer of Ohio State University is chairman. The committee through a questionnaire made a study of the situation in this field in 267 colleges and universities. Some of Miss Palmer's conclusions are as follows:

Because the motion picture facilitates the analysis of motion as no other medium can, it has an important function in the field of physical education.

Generally speaking the colleges and universities are equipped to show motion pictures. The use of the 16-mm. projector seems more prevalent. The silent film is more frequently used at the present time than is the sound film.

The interest in motion pictures specifically designed as instructional aids in the teaching of sports seems universal.

The number of existing films, dealing with women's sports in such a way as to be of value in teaching, is negligible.

There is every indication of a substantial demand for the rental and purchase of films produced as teaching aids in the field of women's sports.

Miss Palmer's committee is now proceeding to an evaluation of the existing films in the field of physical education for young women with a view to recommending plans for other films which should be produced in this area. The study is also being extended to the high school field.

This project has been described at some length because it seems to be an epitome of the process which is necessary in each of the subject-matter fields successively as the entire educational film proposal unfolds.

During the next year if finances are available one or two larger subject matter fields, such as health and the sciences, should be developed. The experience of certain universities in producing motion pictures should be studied. Several demonstrations showing the use of motion pictures in schools should be set up in urban and rural communities. Teacher training in this new field needs to be stimulated and developed. Finally appropriate arrangements need to be made with the various commercial companies for the distribution and use of films, many of which now repose in vaults and which have definite possibilities for use in organized education.

Doubtless one of your chief impressions arising from this brief résumé of accomplishments and plans in this new field is the huge size of it. The field is not only large, but it is complex and relatively uncharted. But it has tremendous possibilities. The motion picture is a new and powerful device which is being used very effectively for the education of most of our children at least once a week in the motion picture theater. We should be willing and anxious to use the same powerful modern device for the education of our children in the schools. Not only do motion pictures hold out great promise for improving school practice, but if they are so used there is, in my opinion, no better or more sure method of raising the level of the motion picture theater.

RADIO

What the place of radio will be in future educational practice seems less certain than that of motion pictures. What radio can be for adults in music, forums, and informative ad-

dressess has now been quite well demonstrated, but we are sadly lacking in facilities which are adequate and continuous for the production of high grade programs. I am sure that you join with me in wondering when we shall realize the power of this new and marvelous device in raising the cultural and citizenship level of this country sufficiently to make adequate provision for diversified, high grade programs suited to the interests and intelligence of the American people.

We are, however, even more negligent concerning the possible direct use of radio in the classroom. There, contrary to the situation in adult education, there are school organizations, both state and local, which should be able to give us a comprehensive, satisfactory demonstration of the possible uses of the radio in organized education. Yet nowhere, so far as I know, have we had such a demonstration.

Fortunately the United States Office of Education is now cooperating with a national committee of the Federal Communications Commission in giving serious consideration to the various aspects of this problem. The committee has some funds at its disposal with which to prosecute its studies.

The American Council is cooperating with a number of other national organizations in calling here in Washington next December a great national assembly of all those who are interested in any phase of educational broadcasting. In my opinion, the conference will go far toward showing the possibilities of educational broadcasting and in clarifying the critical issues which surround this important area of education. I hope that you will all keep the national radio assembly in mind. It is the first assembly of this kind so far attempted in this country.

DR. SMITH

During the past few months the Council has been fortunate in securing the temporary services of Dr. Payson Smith, formerly commissioner of education in Massachusetts. Dr. Smith has spent a large proportion of his time in an exploration of the teacher training situation with a view to identifying and outlining some significant areas in that large field in

which the Council might work with greatest profit. There is scarcely any field so vital to the development of elementary and secondary education. Yet nowhere is there a more baffling problem in the field of higher education. There could, therefore, be no better example of the way in which the large and important problems in education overlap and reach into all the levels of educational effort. It is my earnest hope that the Council may be able to make a convincing and significant contribution to educational policy in the realm of teacher training.

EDUCATIONAL RESEARCH

Many of the problems which are considered by the Council require research for solution. We are thus made conscious at every turn of the difference between the approach to the solution of educational problems today as against the traditional method scarcely more than a generation ago. Then opinion ruled, sometimes only for a brief period, to be succeeded by other theories equally ephemeral. Much of it went under the dignified term of educational philosophy.

Today we are still in the throes of the so-called scientific approach to the solution of educational problems. We call upon facts and statistics to enable us to reach a conclusion. Wherever possible, we are in hot pursuit of a formula which will provide us with a dependable answer.

In our zeal to imitate the scientists we forget or neglect the basic importance of tools of measurement. We do not even agree, as the Council's Committee on Educational Nomenclature pointed out some months ago, on the meaning of many of our most used terms in education. How, then, can we define a concept so as to make it have the same meaning for different people? A dictionary of educational terms, comparable to those that we have in basic and applied sciences, seems to be an obvious need.

I do not mean to say that there is not a great deal of effort going on in the field of educational research. There is. But, as is well known, it is being carried on by college professors on borrowed time, by graduate students whose chief objective

is an advanced degree and by hard pressed school administrators. It is unrelated, frequently overlapping and sometimes inconsequential.

A comparison with the situation in agriculture makes the point all the more clear. A half century ago there was no more of a scientific content in agriculture than there was in education. Twenty years after the federal Office of Education was established the United States Government passed an act providing for an agricultural experiment station in each state in the Union. Since that time the federal government has expended \$78,208,401 in the support of these stations. The amount to which the several states are entitled during the current fiscal year alone is \$4,920,000. These funds are further supplemented by extensive state appropriations. The work in each station has been carried on in relation to that which is being done in all others with the result that after a brief half century there is today a scientific content in agriculture which far exceeds that produced in all the world's previous history.

The briefest recital of this situation shows how unfavorably education compares with it. The federal government appropriates annually to the United States Office of Education only about \$637,000, with which to compile statistics and promote education including the administration of the several acts dealing with vocational education. Most of the state departments of education carry on restricted studies in such fields as teacher training, the curriculum, school finances and school administration. About thirty-five state universities and colleges have established educational research bureaus, most of which undertake researches in teacher training, secondary education and school administration largely on the master's degree level. The number of research bureaus connected with individual school systems numbers approximately 150. Some very good work, especially in the curriculum, goes on in them, but a large part of it must necessarily be devoted to the routine compilation of statistics, tests, classification and guidance of students. It seems evident that the research bureaus

in education are painfully unequal to the great task which confronts them.

Finally a brief word about our personnel for educational research. A great host of people annually obtain masters' degrees in education. In 1933-34 at 81 universities there were 2,356 doctorates conferred, 256 or 11 per cent of which were in the field of education. It would seem as if there were an ample supply of individuals adequately prepared for educational research. Possibly so, but I should like to cite some disturbing facts. In the first place, only about one-fourth of the directors of research bureaus in the city school systems possess a doctor's degree. Secondly, the inducements offered in the way of fellowships to secure graduate students of superior grade in our universities compares most unfavorably with the situation in the natural sciences, mathematics, the social sciences and the technical and professional fields. Finally, those who do show great promise in educational research are largely drawn off into administration or teaching as soon as they complete their advanced training. We have, therefore, no stable supply of researchers in education that at all compares with the situation in either the physical or social sciences.

In my opinion, we should hasten to repair this situation in education. Since 1920 the National Research Council has had a great system of post-doctoral fellowships for those who show great promise in research. In the last fifteen years more than 1,000 such fellowships have been granted in the fields of the physical, biological and medical sciences. In 1934-35 there were 103 such fellowships at a cost of \$221,927. Similarly since 1926 the Social Science Research Council has had a system of post-doctoral and predoctoral fellowships and grants in aid which in 1934-35 cost \$79,343. Likewise, the American Council of Learned Societies since 1930 has had a similar system of fellowships and grants in aid costing approximately \$20,000, which I understand is being discontinued at the end of this year. When in addition to all this one takes into account the other great fellowship systems, such as the John Simon Guggenheim Memorial Foundation, truly it would seem as if education alone of all the great subjects of

study has failed to grasp the significance and the necessity of making adequate provision for the encouragement and training of those who show special promise in research. So long as the present situation obtains, we are bound to lag far behind the accomplishments of our associates in other fields and far behind what is needed for the proper development of educational practice in this country.

In this situation lies a great opportunity and responsibility of the American Council on Education. The Problems and Plans Committee has had under consideration for some time the possibility of establishing a national system of post-doctoral fellowships in education comparable in importance with those now carried on in other great fields of learning. Such a step, if consummated, should emphasize greatly the importance of sound research in education.

There are, however, still greater opportunities and responsibilities for the Council in this situation. Educational research will continue to be carried on in many centers. The Council cannot, of course, provide great sums of money to support educational research stations and a host of field men to go from one to the other to supervise what is going on in them, but it can identify areas of research which are especially promising and needed and through cooperative arrangements of one kind or another help them to prosecute their work in unison. It is a tremendous task but no time should be lost in undertaking it.

It would be quite impossible, of course, to summarize so heterogeneous a group of personal observations and facts about the Council's work. The number of matters to which the Council has given and should give its attention is only a small part of those deserving consideration. I continue to consider it a great personal privilege and somewhat terrifying responsibility to attempt to deal in any adequate way with the problems which face us in education. With the magnificent cooperation which is so evident on every hand, however, the task is easier and certainly altogether pleasant.

GEORGE F. ZOOK,
President, The American Council on Education

A Special Plea for Education

A FEW years ago I was called upon unexpectedly to address an audience in one of the British dependencies on the subject, "The Essential Characteristic of American Education." After some halting and stumbling I finally developed the theme that the chief characteristic of American education is that it will not stay put, that it is constantly changing. I made the point that American educators object to an educational system that is thoroughly standardized and fixed. We believe that every tradition with regard to education should be carefully investigated. We constantly review and examine the aims, the processes, and the results of instruction. We believe that an educational system cannot serve the needs of a changing world without making periodic adjustments. In the course of my address I took illustrations from the elementary schools, the secondary schools, and higher education, showing how we were studying, examining, investigating and experimenting with education. Finally, I declared that the most fundamental feature of education in America is the disposition on the part of the educational forces to scrutinize and examine and test every claim, every theory, and every result.

At the close of my address I found that they had the custom of calling upon some member of the audience to arise and move a vote of thanks for the address which had just been delivered. The presiding officer, after looking over his audience, called upon a very distinguished looking citizen. When this gentleman arose, he took occasion to tell the audience something about his educational philosophy and that of his country. He said:

We learned years ago what the aims of education are, just what processes we should use in attempting to attain those aims, and what results we should achieve. It is not necessary for us to change our educational practice every year nor every decade. There is a stability to it that doesn't exist anywhere else throughout the world, and this stability accounts for the thoroughness of our instruction and the

scholarship of our students. Our conception of education is as widely different from that which Mr. Coffman has presented as one era is from another. According to Mr. Coffman, education in America is in a state of constant flux; the aims espoused today may be discarded tomorrow; the processes advocated now may be rejected in the near future. The achievements of the students pursuing such an educational program must be just as miscellaneous as the program itself. But this has all been very interesting, and I move a vote of thanks.

As I look back upon this experience, I am strongly of the opinion that my English friend was right; but, in making this concession, I do not mean to confess that I was wrong. Our speeches illustrate the two forces that are constantly playing upon each other in society and in the life of every institution: one, the force of change which makes for progress; and the other, the force of stability which makes for security. When either of these becomes dominant and paramount, no progress will be made. Whenever changes occur simply for the sake of change, anarchy will result and when conditions become so stable that no modification is possible, the disintegrating effects of dry rot will soon be evident throughout an institution. Real progress results from the evaluation, the interaction, and the interplay of the forces of change and stability.

A few years ago we learned that it is possible to study the aims and activities of men and of institutions by scientific methods. Most of you in this room can remember the days when scientific techniques supplanted the philosophical bases for making progress in education. We believed then, and many of us still hold rather rigorously to the opinion, that every change should become the object of scientific study and that no real advance in education can result from the whims and caprices and personal ambitions of reformers.

There is abundant evidence to show that American education has moved forward with great speed because of our willingness to experiment with every one of its features.

Associations and institutions and even individual school systems, from one end of the country to the other, are continuously experimenting with education. Although not all of the advances of the past have been the result of careful scientific analyses, we have labored under the impression that changes in the curriculum, the evaluation of techniques of instruction, and the definition of outcomes of education should result from the application of scientific methods.

But it appears that this conception of educational progress is not so completely accepted by all the educational leaders of the country as to represent an established policy. With the coming of the depression and with the free expression given to all sorts of untested social and political theories, it is not strange that the schools are feeling the impact of the claims of those who maintain that the educational system must be reconstructed completely to satisfy modern needs. As a result there is developing not merely a new philosophy with regard to education but a long list of new schools which, as compared with the schools of yesterday, are revolutionary in character. Believing fully as I do in the importance of educational experimentation and in the need of changing our educational program to correspond with the needs of changing times, I am, nevertheless, equally concerned that spurious forms of education whose claims are unproved and whose programs are untested, shall not be too readily adopted by the educational forces of the country.

These new programs of education have three somewhat different but not totally unrelated groups of advocates: First, those who maintain that the schools should be used to create a new kind of society; second, those who maintain that the machinery of the present school system should be completely discarded; and third, those who maintain that the administrative devices and many of the teaching techniques now in use in our schools are worthless.

All three of these groups make the claim that the school system of this country has failed completely. That it has failed in some respects, I think must be admitted, for after

all it is a human institution and like every other human institution it is subject to the current weaknesses of men themselves. It is difficult to discard without a struggle the thought that American schools have been a powerful agency advancing the cause and safeguarding the interests of democracy. That they have not always been as responsive to social change as some would have liked, is scarcely sufficient excuse for advocating an entirely new kind of school program. If the attack now being made by some of the educational leaders of the country upon the schools took the form of discussion, and if the discussion were based upon scientific studies on the one hand and friendly efforts at the evaluation of experience on the other, it would result in great good. If, however, the educational leaders should divide into rival camps and accentuate their intolerances, the steady and progressive advancement of education will be impossible. If some of the leaders hold fast to that which they have, while others try to tear it all down—assuming that there is no virtue in experience and no lessons to be learned from the past—then education has failed to teach its leadership the most fundamental lesson for the evaluation of progress.

But you may say that this situation is not imminent. You may ask, "Why should we spend time in erecting a straw man merely to have the pleasure of destroying him?" Perhaps you are right. And yet it would be well if we reviewed some of the current educational trends and considered the arguments that are being advanced.

Not long ago I attended an educational conference that was dominated by a small group of men who attacked most vigorously the entire system of American education. They were perfectly frank in saying that it is archaic, out-of-date, generally useless and that it represents a static and unprogressive society. They want a new kind of school to fit the youth of this generation for a new social order. The new school they propose will be staffed by teachers who are thoroughly indoctrinated with a new philosophy and who will openly and avow-

edly use the schools to spread their propaganda by indoctrinating the youth of the country.

At another meeting I found a group of educators advocating schools in which there will be no tests, no examinations, no administrative devices for measuring the progress and achievements of students. They also expect to discard textbooks, especially those now in use because they handicap the intellectual growth of the children and offer insuperable barriers to instruction.

There is a third group of teachers who, while accepting several of the positions of the first two groups to whom I have referred, go a little farther, and insist that in the new schools everyone shall be promoted and that there shall be no failures. I shall have more to say about promotion a little later in this paper.

All these new educationists agree that in the new schools of tomorrow the children shall have more freedom; they shall work upon self-initiated and self-recognized problems; they shall waste little or no time upon logical sequences; and that teachers will not find it necessary to familiarize themselves with the fundamental processes of learning. They maintain that education represents out-worn traditions, and its process consists of a hard and futile grind upon meaningless facts, that inquiring minds and free personalities can not be developed in its atmosphere. For these reasons there is no need of studying the past except to learn something about its weaknesses and its failures.

In the new schools no serious obstacles are to be put in the way of the pupils which will thwart their purposes, restrict their initiative, or pervert their personalities. Yet when one looks through all the literature dealing with this point of view, he finds, as Dr. I. L. Kandel of Teachers College recently showed, that it "fails to reveal any explicit reference to social aims or purposes, except that very indirectly it is hoped that the child will become socialized through shared experiences." In calling attention to the slogans which are most frequently reiterated such as self-government, self-re-

liance, self-expression, self-activity, creative acts, pupil activity, pupil interests, individual initiative, pupil freedom, and free activity, Dr. Kandel says that "nowhere is there found any intelligible definition of direction." Then he continues by saying, "One is reminded of the conversation between the cat and Alice: 'Then it doesn't matter which way you go,' said the cat; 'so long as I get somewhere,' added Alice as an explanation."

In the new schools the pupils will busy themselves with whatever they want to do. There will be no real curriculum as the pupils' needs will vary with each other and with time. Even such simple matters as temporal succession in history or learning a way of adding any and all fractions will not be taught unless the children want to learn them. A fixed program, it is claimed, would stultify the thought development and inhibit the growth of personality of the pupils.

It would be difficult to find any school in which these theories have been put fully into practice but there are schools which are moving rapidly in these directions. I received the prospectus of a new type college just a few days ago in which the staff frankly state that textbooks in history will be magazines of current events, that government will be studied from what is happening now, that formal mathematics will be treated lightly, if studied at all.

The University of Minnesota has had the reputation of being somewhat progressive. We established the General College which does many of the things that are suggested in the prospectus of the college to which I have just referred. But we do not believe that history can be taught by using magazines, nor that government can be fully understood by observing current happenings. As a matter of fact, we are firmly convinced that the events of today can be thoroughly understood and interpreted accurately only against the historical background out of which they arise.

Similarly a knowledge of history aids one in evaluating the current educational trends. The history of education is replete with the stories of those who have tried to build a pro-

gram based upon the self-inspired needs of children or converts, and not one of them has succeeded. History shows, too, that sequence in materials is not a matter of accident. It also shows that organized subject matter is as truly an expression of social desires and needs as are things of a more transitory and immediate character. Indeed organized subject matter represents a far more fundamental and enduring need than the experiences of the moment. There is a continuity that runs through subject matter in any realm of human thought. The materials may change from time to time but there is a certain substantial validity to some subject matter which transcends time and space and which remains true whether it was taught yesterday or today and whether it is taught in Russia or in America.

I have no thought of presenting a defense for the status quo of American education. I am concerned at the moment merely with the fact that the conception of education as we have understood it, that is, education which consists of a well-ordered course of study growing out of basic social needs, education which includes subject matter students should master in accordance with well-understood principles of learning, and education which involves a program intended to give the student a genuine mastery of procedures and of fundamental knowledge with no thought of making him a convert to some social philosophy, but with the intention of giving him the necessary equipment to evaluate every doctrine, is under attack by men in the teaching profession.

Even Dr. John Dewey, the father of the project method, is now finding it necessary to protect himself from some who claim to be his disciples. He recently made the point that incidental learning will make students victims of things near at hand. He also declared that continuity of development calls for consecutiveness of action and that if we build an educational program upon the improvisation and immediate interests of children, it will result only in things of immediate interest.

Some time ago I spent a week at a teachers' institute where

the other instructor, a most dynamic and charming woman, presented a program for the schools based upon the activity needs and felt desires of the pupils. She had a class with which she worked. She soon found that the children knew something about farms and barnyards. So they decided to start their learning with barnyard experiences. The children named the animals of the barnyard; talked about their habits, their food, their care, and what they produce; searched the literature for poems about cows and stories about horses; prepared arithmetical problems; milked and churned and molded butter; organized games and imitated the animals; and sang songs about them. All in all it was a most interesting week; and the children had a good time. In the absence of her pupils this instructor told other teachers how important it is that all learning must start from the immediate experiences of the children, and that the children ought never to be required to learn anything that they did not want to learn. She developed her lessons for the children and her addresses with rare skill. You can scarcely imagine what distress I experienced when I learned in friendly conversation with the teacher that she had all of the work of the week, even the so-called lessons, based on the spontaneous activity of the children, planned, organized, and outlined long before she came to the institute to conduct her demonstration classes.

A friend of mine has a son who attended primary school where the children were not to be taught anything that they did not wish to learn. At the end of six months his parents could not discover that their son had learned a single thing. The father was so much disturbed over the matter that he called on the teacher. He said, "I have come to inquire about my son. He can't read. In fact he doesn't recognize a single word. His mother and I wonder what is the matter with him." "Oh," said the teacher, "you needn't be disturbed about that, he leads our line of march and takes a prominent part in all of our games." "Yes," the father said, "but he can't read." Then the teacher with a patronizing smile looked at the father and said, "Some day he will come to me and

say, 'Dear teacher, won't you teach me how to read those beautiful stories you read to the class?' " The father said, "Don't you fool yourself! I asked him why he didn't learn to read and he replied, 'Why should I? After she reads the stories to us, I can stand up and tell them as well as the rest of the class.' " The father then asked the teacher if she would have the boy bring his book home at night. She was horror-struck by the idea and said she would never think of doing so as it would destroy the initiative and originality of the boy. As the father passed out of the door he murmured, "If you won't destroy it, I will." So he bought another book and taught the boy at night. At the end of two weeks the lad stood up before his class and read his first piece. The sense of exhilaration he experienced over this intellectual achievement far exceeded the joy of leading the line of march or taking a prominent part in the games.

The theory of the new school is a beautiful theory. I like to reflect upon its Utopian possibilities. It reminds me in some respects of some of the principles advocated by Russian leaders soon after the overthrow of the Czar. When I was in Russia in 1928, these principles were still discussed and advocated. One was that in the new society they were trying to build everyone would do the kind of work for which he was best fitted by nature (a doctrine which sounds surprisingly like an American pedagogical dictum); this practice would enable everyone to make the largest contribution of which he was capable to the happiness of his fellow countrymen. Those who liked to make shoes would be found making shoes; others would be found running street cars; others, farms, and so on, but no one would be doing anything that he did not want to do. It was also expected that when one went for shoes he would never take more than he needed, nor would he ride on the street cars more frequently than was necessary. Money, you see, would be unnecessary in a society of this kind. The tragedy of it all is that this new philosophy seemed to run contrary to human nature—there

were no shoes, the street cars did not run, and the government found it necessary to pay wages.

The Russians also adopted a new theory about education which was similar to that of the progressives in this country. They soon learned that their pupils acquired little knowledge or skill, that there was no continuity to their work, and that many fundamental truths and principles were not learned at all. When they discovered that in spite of the freedom of their new education the pupils were acquiring no useful habits, no genuine mastery of the instruments of intellectual learning, no training in the canons of thought, no understanding of action and reaction, of cause and effect, of progress and depression, of growth and decay; they made a complete face-about, restoring "systematic and sequential learning, based upon textbooks, giving teachers authority to enforce discipline and instituting a system of examination."

And yet in view of all this and other convincing evidence that might be presented, mushy and anaemic pedagogical doctrines are invading education all along the line, including colleges and universities. I realize fully that the way to get applause is to cry out against something, to hold up one's hands in horror, and to demand a reform. In education he must proclaim his independence and ask for a new deal for himself, for the members of his craft, and for the youth of his generation. Dr. Bagley says that if one is looking for applause he must:

Attack the curriculum as outmoded, shed tears over the cruelty of examinations, eloquently condemn every administrative device now in use for measuring and recording progress and for insuring the stability of the schools, and if he closes his address with a peroration about the sacred rights of children, he will be fairly swept from the platform by a torrent of applause.

The disintegrating effect of emotional appeals of this character is sapping the vitality of the lower schools in many places; it is demoralizing the intellectual work of some of

our colleges; and it is lowering the standards of graduate work. One can now obtain a degree at some institutions by engaging in a pleasant sojourn casually inspecting something or other about some community. He can obtain an advanced degree without meeting any of the rigorous requirements of the past, with the result the country is being flooded with masters' and doctors' degrees which mean little.

It may be old-fashioned to refer to it, but I have observed that the best way for one to get on in medicine is to become a better doctor; the best way for one to advance in law is to become a better lawyer; the best way for a teacher to advance is to become a better teacher; and the best way for a student to progress is to be a better student. I have also observed that the men in the various teaching fields who spend their time haranguing the public from soap boxes or carrying on pamphleteering campaigns about something or other are seldom ever men for whom the scholarly world has profound respect. I note that the real scholars in every field are the men who devote themselves, even in these times, to the advancement of their subjects and to the refinement of their techniques. When the history of this period is written, I venture the assertion that its scholars will receive high praise, that the faithful devotees of the professions will be honored, while the reformers will be mentioned, if at all, in footnotes.

A little while ago I visited ten alumni groups of the University of Minnesota. At each of them I was asked the same questions. The first question almost invariably had reference to somebody; the second, to the college from which the alumnus had graduated; the third, to the changes on the campus; and the fourth, to student activities. It soon dawned upon me that graduates out of college a few years were more interested in certain professors and in the quality of the work required by the college than in anything else. And the professors in whom they were most interested were the men who maintained stiff standards and who insisted that the students study, recite their lessons, and show

h degree of mastery in examinations. Can it be that all disregard this conception for one of lax standards or standards? Is it possible that youth can in a few in school through self-initiated tasks learn what it has the race generations of social effort to achieve? Can be freed from the spectres of fear, and want, and ignorance by an educational program that gives no thoroughgoing mastery of anything? Can democracy really be made safe program that provides no background of experience, that is learning by understanding, that has no standards, and advances all alike regardless of their ability or achievements? Such a program will provide an uninformed and previous generation of Americans who will be the easy prey for reformers and demagogues.

When I refer to advancing all students alike regardless of their ability and achievements, I mean just that, for this is one of the tenets of the new education. In the schools of the future everyone is to be promoted. The smiling but countenances of these over-age illiterates will be seen in every classroom. Even if the youngsters are bright there is more reason to believe that they will work if they are going to be promoted anyway than there is to believe that the unemployed will work if they are going to be fed out any effort on their part.

The most recent example of this "uninterrupted continuation" is the one hundred per cent promotion scheme proposed for the New York City schools. Dr. John L. Tildsley, assistant superintendent of the schools, has opposed the plan on the ground that it will encourage laziness and irresponsibility and will accelerate the degeneration of the American educational system. In denouncing the plan, he says:

Let us follow this through logically. A pupil enrolls in elementary schools, spends six years there without being required to meet any standards, and passes on to the next high school, which must then lower its standards to his. He goes on to the high school, where the same process is repeated. Then he goes on to college, which will

also not require him to meet any standards. From there he goes to medical school, where the same conditions obtain. He gets his degree and goes to a hospital to serve his internship and is told that he will be allowed to develop as his abilities. Then he hangs out his shingle and operates upon Steve Bayne for appendicitis. Dr. Bayne wouldn't like that.

Dr. Bayne was the chairman of the committee that prepared the report.

I agree fully with the position Dr. Tildsley has taken. If I am to be operated on I want a surgeon to do the job who can name the blood vessels, the nerves, the organs, and even the bones of the human body. I don't want someone in charge of such an important undertaking who was never required to complete any task nor to show any particular accomplishment. And I would insist upon fitness and competency for every important task. Of course the more personal the problem or the more vital it is to social welfare, the greater the necessity of having an expertly trained technician or scholar in charge of it. Surely we should not put our lives nor our country in charge of men who passed through school without really learning anything. We should not let our sympathy for those who refuse to work in school get the better of our judgment.

I know how tragic failure may be. I have listened to many pitiful stories from students and parents, as they have tried to explain away the failure of students. Sometimes I have been moved by these stories and have given youngsters another chance. And yet these special actions should not be accepted as representing the policy that should prevail.

I am well aware of certain adjustments that can be made as partial solutions to the problem of failures. The subject matter may be broken up into units and the pupils may be required to master each unit in turn. While such plans have much to commend them, I am not concerned with them at the moment. I am concerned, however, with educators who would pass students from one grade to the next regardless of their achievements. Usually when failure is men-

tioned we become too sentimental and think too little about the social waste that will ensue if we continue to pamper and indulge the individual in his irresponsible practices. I can tell you stories of men at our institution who failed but whom we refused to coddle and who later achieved distinction. What would society have lost if Pasteur, who failed, or if Einstein, who failed, had been coddled and passed? Surely we cannot solve the problems of the modern world by developing a generation of dilettantes nor by placing a premium upon universal ignorance and universal illiteracy.

The proposal of the educational zealots represents such a complete departure from what I have looked upon as the real nature and purpose of the schools, from lower to higher, that I felt that some consideration of the matter might be profitable for us. I think the primary purposes of the schools are to make pupils facile in using the instruments of learning, to teach them how to gather, weigh, consider and evaluate facts and conditions, to help them discover, interpret and understand trends in civilization, to enlighten them as to the methods required for human adjustment, and to enable them to acquire a rich background of systematic knowledge as a basis for understanding and interpreting society. I think the schools should be free from doctrines and that they should not send their graduates out into the world with biased and prejudiced minds. And I believe that there should be a core of well-selected, well-organized subject matter which students should be expected to master before they are promoted.

It is indeed encouraging to note that the Commission on the Relation of School and College of the Progressive Education Association is now carrying forward its experimental studies of some of the newer forms of education. These investigations are being conducted with the cooperation of thirty secondary schools of the country which, in the past, had prepared students successfully for college. In some of these schools the curriculum is changed for all students; in others, certain classes are set aside for experimental pur-

poses. This new program, in general, strives for greater continuity and better integration of subject matter, more satisfactory adaptation to individual capacities, needs and interests, more vital subject matter and greater use of the environment. Fortunately the Commission has secured an expert in the field of measurement and under his direction is attempting to collect evidence on the extent to which the schools are accomplishing their stated objectives. With approximately one thousand students entering college each year from these experimental schools, and with the program projected to evaluate the work of these students at the higher level, *much valuable information should become available* over a period of years. More studies of this type should be encouraged and supported. My criticism of certain progressive movements is not directed at this type of experimental evaluation; it is directed instead to the general adoption of certain proposals with no thought of evaluation.

I have taken the time to present this matter for several reasons: I think that the proposed theory of education is in some respects both dangerous and incomplete. Every student of history knows it is not new; he also knows that it contains certain desirable elements which I have not tried to emphasize. Another reason why I have taken up this subject is that I fear the disintegrating effects of this theory. When I reflect on the history of civilization and on the problems of present day society, it seems to me that there was never a time when serious study and careful research were more needed, never a time when students should be held more rigorously to high standards and when assignments should call for a maximum of effort, never a time when students need more to be taught that there is no royal nor easy road to learning, and that understanding can be acquired only by mastering systematic knowledge.

The weakening influence of groups that believe in progress by overturning completely the present educational superstructure will be reaped when a generation of students who have been the beneficiaries of such a theory reach maturity

and undertake to serve the common welfare and to decide the issues of a complex world. Important duties can be discharged effectively only in direct proportion to the standards of excellence maintained by the educational institutions of the country. I agree fully with the English Association for Education in Citizenship which declares that:

If democracy is to survive and develop as a living force, our educational system must produce men and women loving freedom, desiring to serve the community, and equipped with the *necessary* knowledge and powers of clear thinking to enable them to become effective citizens.

It is because I believe in necessary knowledge that I make a special plea for education that puts lime in the bone, iron in the blood, and organized knowledge in the minds of the youth of this generation.

L. D. COFFMAN,
President, University of Minnesota,
Chairman, American Council on Education, 1935-36

Teacher Selection

TESTED INTELLIGENCE AND ACHIEVEMENT OF TEACHERS-IN- TRAINING

THE available test evidence, as far as it is known to the writer, is generally consistent in indicating that students in teacher training institutions, as a group, are inferior to students in liberal arts colleges in those abilities and achievements measured by the tests which have been used in large scale testing programs. The Pennsylvania Study of the Carnegie Foundation, which was the first large scale project affording comparisons between teacher training and liberal arts colleges, shows that the students in teacher training schools and in university departments of education are substantially lower than comparable liberal arts students in the scores which they secure on nearly all tests, including tests of intelligence, English, mathematics, foreign languages, natural science, and social science. These indications are based on adequate samplings for the state of Pennsylvania, since nearly all students in the respective groups took the 1928 tests, and more than half took the tests in 1930 and 1932. In these two latter years, 1930 and 1932, comparable tests were given to students as sophomores in 1930 and to the same students as seniors in 1932. The growth in the functions measured by the tests was generally less for teacher training than for liberal arts students.

One of the outgrowths of the Carnegie Foundation's study in Pennsylvania¹ was the inauguration of the nation-wide college sophomore testing programs conducted by the Committee on Educational Testing of the American Council on Education. The numbers of colleges participating have

¹ I gladly take advantage of this opportunity of paying deserved tribute to the institutions of higher learning in Pennsylvania, both professional and liberal arts, for the contributions they made to the study of education by their cooperation in the pioneering Pennsylvania Study, and by their continued work along the same lines, as evidenced by their participation in the programs of the Teachers College Personnel Association and otherwise.

varied from roughly one hundred to one hundred and fifty, about forty states being represented each year; but not more than a dozen to twenty of the participating institutions in any one year have been primarily teacher training institutions. This sampling is obviously inadequate, and the differences are mixed in direction, but the general average appears to be slightly in favor of the liberal arts colleges. Still more significant is the fact that when we compare all college sophomores from all types of institutions who say they are preparing to enter the teaching profession with sophomores from all institutions who say they are planning to become lawyers, doctors, or journalists, the aspiring teachers secure lower average scores on nearly all tests except the spelling test.

These indications are confirmed by the results of the four annual testing programs conducted by the Teachers College Personnel Association. These programs were inaugurated in 1931 by Dr. G. W. Frasier, president of Colorado State College of Education, and represent the first testing program of national scope undertaken in this country by institutions of higher learning. Dr. J. A. Heilman, who has written the very illuminating and able reports published each year by the Teachers College Personnel Association, says on page 7 of the 1934-35 report that the average intelligence score of entrants to teacher training institutions is about 0.76 of a score below the average of entrants to liberal arts colleges. These indications are based on returns from between 30 and 40 teachers colleges in each of the three first annual programs.²

There are, however, two obvious weaknesses in all the comparisons summarized above. The first is that the samplings of institutions of both types are inadequate for valid comparisons. The smallness of the numbers of teacher training institutions that have cooperated in these efforts to learn something about the academic abilities and achievements of

² Several charts presented at this point are omitted here because the charts are (or will soon be) available elsewhere. See *EDUCATIONAL RECORD* for October 1932-35, inclusive, and the forthcoming report of the Carnegie Foundation on the Pennsylvania Study.

the thousands of young people on whom teacher training resources are blindly and prodigally expended is perhaps a more significant commentary on the teacher training institutions of the country than the apparent test inferiority of their students as compared with liberal arts college students. Reading the list of institutions participating in these various programs I find some teachers colleges that in my opinion are among the best and most promising in the country; but I fail to find in the list any one of a dozen institutions which have the most extensive publicity, and which according to their press agencies are *the* best in the country. Although several liberal arts colleges in this vicinity have participated in one or more of these programs, not one teacher training institution in greater New York has ever to my knowledge participated in any of these programs, or done anything notable to make them more effective, or to direct the laudable motives back of them into more useful channels. Everyone who has studied education in this country knows that the teaching personnel problem is one of the most crucial that confronts us today and in the near future. I cannot avoid the conclusion that it is a serious danger signal that, in the face of this fact, some of our leading teacher training institutions are both silent and inactive, except for efforts in some quarters to revert to stringent unit and credit requirements, and to increase the "time service" of students,—twenty years after the fallacies of such irrelevancies have been exposed, and several years after some of our most conservative liberal arts colleges have begun to lessen the grip of such penological devices by considering evidence of individual power and achievement rather than mere conformity to ritualistic time schedules and the amassing of prescribed units and credits.³

The second weakness in the comparisons made above is that they are invidious in nature and irrelevant to the real

³ In this connection it is interesting to consider the recent remark of a professor of psychology in a middle western teachers college: that teachers colleges were among the first in this country to advocate individualized education and they are among the last to try to practice it.

issue of selecting and training appropriate personnel for our schools. No one can find comfort or discomfort in these comparisons unless he is motivated by institutional rather than educational welfare interests. It is an open secret that one of the conflicts involved in this problem is between institutional survival and the maintenance of professional standards.

I have no inclination to over simplify the problem, nor do I wish to appear over optimistic; but it appears to me that this conflict is at least partly fictitious, and to that extent amenable to a constructive solution. We may have large enrollments of heterogeneous masses of students, and at the same time observe some modicum of decent professional standards, if we will only recognize openly the fact and the educational implications of the heterogeneity of the student bodies in both types of institutions, and provide for their differential needs and abilities in such a way as to do something useful for all types of students. Those who are of professional caliber can be identified more accurately than at present, and can be given appropriate professional training, while those not suited by ability or personality can be helped to formulate and achieve educational and vocational goals which are appropriate to their individual abilities, interests, and needs. But this worthy and socially desirable aim cannot be promoted by blanket prescriptions of minutely defined units, credits, and time service for heterogeneous masses of students.

All available evidence indicates that both liberal arts and teachers colleges are populated by extremely heterogeneous masses of students. This variability persists through the four classes and is approximately as great in the senior classes as in the freshman classes. In all classes in nearly all colleges of both types there are some students who are below the average of the ninth grade classes in good secondary schools. In some colleges of both types, half or more of the sophomores are below the ninth grade average in test-intelligence and in English usage and vocabulary, as well as in the other types of

achievement measured by the tests used. Many of these students are literate only in the legal sense of the word, and their presence in professional educational classes is inexcusable from any viewpoint that is consistent with professional integrity as opposed to institutional loyalty. The presence of such academically low types of students is educationally and socially defensible only in those institutions that can and will make provisions which are appropriate to their pupils' limited academic abilities and interests, and which will help their pupils formulate and achieve goals which are appropriate to them as individuals. In this connection it would be interesting and genuinely significant to compare liberal arts and teachers colleges on the basis of the provisions they have made for the study and guidance of their pupils as individuals. So far as I know of my own knowledge, there is only one teacher training institution in this country that keeps cumulative records on its pupils as extensive as the minimum recommended by the Personnel Committee of the American Council on Education in its 1928 report. There are doubtless many others that have this minimum provision, and I hope a few that have a more adequate guidance system; but my impression is that in most colleges of both types the records do not go beyond the course grades and their correlative meaningless credits, and fractional unit summations.

Reverting to the comparisons between liberal arts and teachers colleges, it seems to me that heterogeneity of student bodies in the former might be more defensible than in the latter. The liberal arts colleges that are equipped, as some of our junior colleges are, to provide differential curricula might have intelligence and achievement test averages far below the teachers college average and still be educationally valuable if not academically respectable. The contribution, and hence the social value, of an institution of higher or lower education is not to be judged solely by the average intelligence and culture of its students, but partly at least by the appropriateness of what it offers to each pupil in the light of his individual abilities and needs. But the teacher training insti-

tution, in so far as its strictly professional function is concerned, should be judged primarily, I think, on the extent to which its students lie above an acceptable minimum of intelligence and culture. I do not know what that minimum should be, but if I had to express an opinion I would say that, with rare exceptions, no student should be admitted to professional education classes who is at entrance to college below the present average of liberal arts college freshmen. Since this would exclude at least 60 per cent of pupils now in teacher training institutions over the country, I ought to say that it represents an ideal rather than an opinion. The enforcement of *this standard* might exclude as many as 90 per cent of the students now in a few individual teacher training schools, but there are at least a few teacher training institutions in which this standard would cause negligible if any reduction in present enrollment. It is, of course, unnecessary to point out that no one standard would serve best for all grades and classifications of teachers, nor for all localities in the country.

It may, perhaps, be desirable to remind ourselves that liberal arts colleges have made significant contributions to teacher training in the past, and that they are making significant and even indispensable contributions to our teaching personnel now. I believe they can make greater contributions in the future. I should deplore any regulation, or any movement, which directly or indirectly might tend to lessen the contributions of the liberal arts colleges to the teaching profession. Regardless of the motivation, I fear that any such movement or regulation would do more harm than good, not only to the teaching profession but to education in general.

THE NEED FOR MORE SELECTIVE ADMISSION AND HIGHER GRADUATION STANDARDS IN TEACHER TRAINING INSTITUTIONS

The most constructive suggestion which I can offer is the rather obvious one that teacher training institutions should make an honest and genuine effort to raise their admission and graduation standards as rapidly and as high as circum-

stances will permit. Here I am speaking only of their strictly professional education classes or departments. It is not within my province here to discuss the merits of the question whether teacher training institutions should enter the junior college field, or compete with the liberal arts colleges in providing general nonprofessional education for various types of pupils. My point is that if teacher training institutions continue to admit students of nonprofessional caliber, they are morally bound to do at least two things: (1) keep them out of professional education classes, and (2) provide learning facilities which are appropriate to their individual abilities and needs.

The crux of this problem is the nature and extent of the evidence on which the decision regarding the professional fitness or promise of each applicant for admission or candidate for the professional degree is based. I can find little or no reason for believing or hoping that a continuance of or an increase in the number of prescribed units and credits will bring us much nearer to a satisfactory solution. My skepticism regarding the influence of such prescriptions in the future is based upon my observations of their influence in the past. Prescribed units, credits, and time-service requirements have failed to maintain professional standards in the past, and they will fail in the future.

I am not opposed to the five-year plan of which we have heard much recently, first, because I have not been able to learn precisely what this plan involves, and second, because such a plan may be desirable on other grounds. But I am fairly well convinced that a mere increase in the time requirement, with or without prescribed units, will not notably raise professional standards, but may actually prevent some very desirable types of young people from entering the teaching profession. We all know that many students who now fulfill all the unit and credit requirements and receive diplomas which are in effect teachers' licenses, are not of professional caliber in intelligence or culture or personality. Incompetents who can collect four years of credits can collect five years of credits by precisely the same means. The fifth year will in-

crease the burdens, financial and otherwise, of all teachers-in-training, including the best and most promising candidates, but will not of itself, I fear, prevent the incompetents from amassing the required number of units and credits. Whatever else may be said of the horde of semi-literates that now flaunt their diplomas before the credulous eyes of employer superintendents, they have displayed great powers of endurance for which a fifth year would be no insurmountable barrier.

While I neither advocate nor oppose lengthening the time requirement, it is only fair to say that it does not seem to be wholly incompatible with procedures which, in my opinion, would definitely tend to raise professional standards. My point is that time spent in classrooms or elsewhere is not a good index of intelligence, culture, personality, or other professionally desirable qualities. The four-year, or even a three-year requirement, if properly and honestly administered, might give us better teachers than a five or even a six-year requirement as administered in the past. We all know that some students in both liberal arts and teachers colleges are more intelligent, more broadly cultured, and better teachers after one or two years of professional training, than others are or ever will be after collecting all required credits in a four-year course.

What I have to propose, briefly, is that we transfer our attention from units and time requirements to the individual applicants and candidates. Let us remove bureaucratic book-keeping of time served and credits at least from the center of the stage and devote ourselves to an honest and continuing effort to ascertain the professional promise and qualifications of individual candidates regardless of credits, units, or previous conditions of servitude.

In this type of attack on the problem some system of cumulative records, similar to but more extensive than that recommended by the American Council, will be an indispensable aid. The major aspect of such a system would be the cumulative behavior record of each student. The descriptive schedules devised by Dr. E. R. Smith and his P. E. A. Committee on

Records and Reports, supplemented by or based upon a systematic anecdotal record, would help to reveal progressively the habits, attitudes, significant experiences, dominant interests, personal development, and social adjustment of individual students.

An indispensable part of the behavior record of an individual student would be a systematic and, as far as possible, graphic record of his performances on as great a variety of examinations, both subjective and objective, as time and resources will permit.

It must be frankly admitted that the record system here proposed, with all that it implies in the re-orientation of teachers and administrators and the redistribution of their time and efforts, is a very large order. It may seem impossible to those of us who have fallen heir to the tropism of identifying professional education work with curriculum, classroom rituals, and credits, rather than with the learning and behavior of growing students. But it is my considered judgment that something of this sort is absolutely necessary. Nothing else has ever been suggested to my knowledge which has any promise of rescuing education from the morass of conflicts and social ambiguities in which we are laboring.

The duty of the teacher to learn his pupils is equal or paramount to his duty to teach them. Learning pupils is just as prerequisite to wisely teaching them as diagnosis of patients is prerequisite to safe medical or surgical treatment. Teaching that is not guided by the ascertained abilities and needs of pupils may be and often is as harmful and inexcusable as malpractice in a hospital.

Although the plan here suggested is difficult, it is not impossible. Many schools and a few colleges have already approximated it in practice. The president of the one teacher training institution in which I have seen the installation of the American Council Cumulative Record system has frequently said that his records had already paid for themselves several times, and would be indispensable to his administration of the college at any cost. One of the marginal, but very great, advantages

of such a record system in a teacher training institution is that the future teachers learn from their own cumulative records the values of a continuing study of individual pupils for their own later work as teachers. This is an especially important advantage in view of the almost complete neglect of the individual analysis and guidance functions in our teacher training curricula. In medical colleges about 75 per cent of the curriculum is designed to enable the future physician to ascertain the ailments and needs of his patients. In teacher training institutions the future teachers are kept largely innocent even of an awareness of the guidance problem; hence many of them never become more than servants and watchdogs of whatever curriculum is dictated.

NEED FOR MORE OBJECTIVE AND MORE EXTENSIVE APPRAISAL OF CANDIDATES FOR TEACHING POSITIONS

While teacher training institutions may, and in my opinion ultimately will, make their diplomas and accompanying cumulative records more reliable bases for the selection and employment of teachers than they are at present, it is my opinion that a barrier at the point of employment is necessary, for the present, and probably will be desirable for an indefinite period in the future. Such a barrier will not only serve as a wholesome check on institutions that are empowered to give teaching degrees, and as a protection to those institutions that honestly maintain high standards, but will also serve to relieve the employing superintendent of political and other unprofessional influences. Perhaps the best illustration of what I have in mind is the plan that was developed and has been used for several years in Providence, R. I., and the best description I can give you of that plan is a memorandum kindly supplied by Dr. R. D. Allen.

THE PROVIDENCE PLAN OF TEACHER SELECTION

The by-laws of the School Committee and the statutes of the State of Rhode Island require the Superintendent to nominate teachers and report upon their qualifications. During the

school year 1931-32 the Superintendent and his staff adopted a plan for the testing and rating of candidates for teaching positions in order to select from the many available candidates those who were clearly superior in the essential and desirable elements that make for successful teaching. The plan is briefly as follows:

Every candidate should possess certain broad educational qualifications, including general culture, scholastic aptitude, and professional preparation. All candidates must take objective examinations in these fields. In addition, each candidate should be a master of at least two subject fields of instruction in the curriculum of the public schools and through objective examinations must demonstrate scholarship in these fields sufficient to justify his appointment to teach them. The result of each of these five examinations is translated into a percentile rank, indicating exactly where the candidate would rank in a group of one hundred teachers. These percentile ranks are added and the total examination marks count a possible 500 points out of a total of 1,000.

Naturally the desirability of any system of examination depends upon the quality, fairness, reliability, method of correction, and method of administration of the tests. Much of the success of the present program is due to the fact that at the time of its inception a new series of tests was made available through the efforts of the American Council on Education and the generosity of the General Education Board. The examinations are of the new-type, objective form, easy to correct, and comparable from year to year. New forms are guaranteed for ten years. The examinations have been prepared by some of the foremost technical experts in the country and are entirely free from commercial motives, since they are available at cost through the foundation.

Three special advantages of these examinations are worthy of note:

1. The objective nature of the examinations makes it possible for each candidate to have the privilege of examining his corrected test to satisfy himself concerning its proper scoring.

2. No teacher who is a college graduate should object to taking the subject examinations that are required of high school and college students.

3. The impartial nature of the examination and its removal from a local setting is highly desirable. Special arrangements

insure that no candidate may secure a copy of any test before the date of the examination.

Of the remaining 500 points, the 200 which evaluate training and experience are also impersonal and objective, since they are determined by a scale of values and are based upon a questionnaire which each candidate files by number without his name attached. Thus 700 out of 1,000 points are determined on the basis of examinations and facts, all of which may be reviewed and challenged by the candidates and all without involving the names of the candidates.

The remaining 300 points represent *a group rating in teaching personality*. The rating is made by a group of principals and assistant and deputy superintendents who determine the relative desirability of each candidate as a member of a school faculty, as a wholesome influence with growing young people, and as a positive asset in the life and work of the school. A relative rating on personality is spread on a 300 point scale and added to the ratings on experience, general qualifications, and special qualifications, to obtain a grand total score. When the candidate has been trained in our schools, the record of training is a very important phase of the rating.

When these steps have been taken, the candidates then are listed in subject fields in the order of their total scores and appointed in order as they appear on the list. During the past three years this procedure has been followed. Preference in appointment is given to local candidates. Every candidate is informed concerning his own rating. All records are open for inspection by any person who has a legitimate interest in them, and all candidates who desire further information have been interviewed by the Director of Research or his assistants.

The present plan prevents any suspicion of discrimination on the basis of religion, nationality, race, or political considerations. It places entrance to the teaching profession in Providence upon a high professional plane which considers only the selection of persons best qualified to serve the needs and interests of children and the community. The record of appointments for the past three years speaks for itself in the growing confidence of the teaching staff and of the public in the method and its administration.

There may be some who would demur at the use of objective tests of subject matter achievement in selecting teachers. In the Providence Plan the objective tests are assigned 500

of the 1,000 points on the basis of which the candidates are placed in preferential order. It is obvious that many qualities other than academic intelligence and achievement are essential for good teaching, and these qualities should be considered and estimated or measured as accurately as possible. But their importance does not detract from the importance of the qualities measured by the objective tests used in the Providence Plan. However well-endowed with personality qualifications a candidate may be, he cannot teach mathematics or foreign languages, or English or history or science unless he has at least a minimal mastery of one or more of them.

While I believe that a selective barrier at the point of employment is highly desirable, and that national or regional agencies can and should make a great contribution to American education by helping small school systems to set up and operate selective schemes similar to that developed in Providence, it is clear that the problem ultimately cannot be solved economically or satisfactorily except by the institutions that assume responsibility for training future teachers, including both teachers and liberal arts colleges. I am convinced that both types of colleges can make genuine progress in the near future if they will resolutely turn their attention somewhat from paper-curriculum requirements, credits, and ritualistic fulfillments, to the measured achievements and abilities, and the observed powers and conduct of individual students and candidates. We need more cautious and experimental selection at entrance to professional education curricula, more careful and systematic guidance and elimination during the professional education course, and much more rigorous selection in granting professional degrees.

In conclusion, I take the liberty of suggesting that the Eastern States Association of Professional Schools for Teachers take the opportunity presented by this problem of manifesting its leadership in a way that will conform to its high reputation for leadership in other important educational problems. Specifically, I would suggest the appointment of a committee on teacher selection, whose duty would be to study and

report upon ways and means of improving selection at entrance to professional education curricula, of developing more effective guidance during the college careers of prospective teachers, and of enforcing more appropriate standards in the granting of professional degrees. Such a committee might well devote its attention first to the formulation of a five-year experimental project, based upon a wider and more systematic participation in the testing programs of the Teachers College Personnel Association and of the American Council on Education. Although only a relatively small number of colleges have taken part in these programs, the test results have already accomplished a great deal in making college officers aware of conditions, and thus laying the necessary foundation for further exploration and intelligent action. The tests do not by any means tell the whole story, but they are and will remain a basic and indispensable element in any adequate selective and guidance program. If such a committee as I suggest should formulate a five-year project to be carried out in cooperation with the Teachers College Personnel Association and the American Council on Education, I am confident that many colleges not now active in this type of work will welcome the opportunity to join in a coordinated attack on a problem whose crucial character is now only too apparent. The results of such a project will almost certainly constitute a greater contribution than any of us can now foresee.

BEN D. WOOD,
Director, Cooperative Test Service

Planning Educational Progress

A PROPOSAL was made recently by the President of the American Council on Education that it would be desirable at this time to present before the Council a statement concerning the historical background of the Educational Policies Commission, its underlying philosophy, and some of its plans and procedures already under way. The opportunity was accepted gladly because we realize that the success of the efforts of the Commission will depend largely upon the extent to which it can enlist the interest and secure the cooperation of other groups concerned with the welfare of education. This is especially true of your organization which has already made important contributions in so many areas of the national scene and which represents in its membership leaders selected from practically every sector of the educational frontier. While those responsible for choosing the personnel of our Commission attempted to avoid duplicating other groups as far as practicable, the whole-hearted cooperation and support of the Council in the creation of this new Commission justified encroaching somewhat on your membership. Therefore, our Commission includes the president of the Council, Dr. Zook, the chairman, Dr. Coffman, and a member of your Committee on Problems and Plans in Education, Dr. Smith.

Three years ago, when the depression began to take its worst toll of educational institutions, the National Education Association and the Department of Superintendence appointed the Joint Commission on the Emergency in Education. As its name implies, this Emergency Commission attempted to deal quickly and effectively with the most critical phases of the financial emergencies confronting schools and colleges. A detailed description of the work of this Emergency Commission is unnecessary at this time because you are all more or less informed about it. Through the activities of this Commission a change in the public attitude toward the problems of financing education was effected. As the Emergency Commis-

sion worked forward, however, and as conditions began to improve somewhat, there was a growing feeling among the Commission and its advisers that these emergency procedures, helpful though they were under the particular circumstances, were not adequate or adapted for long range improvement of the public schools.

Let me give one illustration of this feeling of inadequacy, because it was out of this feeling that the recommendation for the creation of the Educational Policies Commission emerged. City school budgets had been cut during the depression. This reduction of school budgets had, of course, been accomplished in part by the discontinuance of certain types of service. Adult evening schools of the traditional type were probably the most frequently discontinued services. By 1933 these schools had been completely eliminated in 28 per cent of the cities which operated them three years earlier. The program of the Emergency Commission naturally advocated the restoration of the funds for these services and, at least by implication, the restoration of the services themselves. But it so happened that during this same period of time the whole adult education movement underwent a profound change in scope and in philosophy. A mere restoration of the old-fashioned type of evening school was not what was most urgently needed and not in keeping with the thought of the times. The education of adults in civic and social matters was given a higher importance than merely replacing the deficiencies of their earlier schooling, or giving a little special training along some vocational line. Under the able leadership of Superintendent Studebaker, now the United States Commissioner of Education, the adult forum idea was coming into prominence. In short, a restoration of the adult education program of 1929 was not at all the thing desired for 1935 or 1936.

Many similar examples come readily to our minds. Thus, the Emergency Commission found that many of the evils which it was trying to correct had their roots in conditions existing long before the onset of the depression, and that these deficiencies required far-reaching changes for their removal.

It found that changing social and educational conditions required a changed educational program rather than a mere restoration of the pre-depression program. In bringing its work to a close with the passing of the most urgent phases of the depression, the joint commission in July, 1935, recommended to the organizations which created it, that an Educational Policies Commission be established for a five-year period. It was recommended that this new Commission be made responsible for long-term planning for American education, that it should focus our thinking upon the process of adapting educational institutions to the ever-changing needs of our society. It was recommended also that this Educational Policies Commission attempt to provide means for the continuous self-appraisal by the teaching profession of the American system of education.

Following up this recommendation in December, 1935, the Educational Policies Commission was appointed jointly by the National Education Association and the Department of Superintendence. Shortly thereafter the General Education Board made the National Education Association a grant to assist in financing the work of the Educational Policies Commission for a period of five years. The Commission met and organized last January, and will hold its second meeting next week. As far as practicable, the Commission members were selected because of their outstanding ability for the job to be done, and not to represent different educational "interests" or levels. They are:

Cornelia S. Adair
Lotus D. Coffman
George S. Counts
J. B. Edmonson
Willard E. Givens
Frederick M. Hunter
Charles H. Judd
John K. Norton
Mary C. Ralls

Agnes Samuelson
John A. Sexson
S. D. Shankland
Payson Smith
George D. Strayer
J. W. Studebaker
Willis A. Sutton
A. L. Threlkeld
George F. Zook

A. J. Stoddard, *Chairman*
William G. Carr, *Secretary*

The function of the Educational Policies Commission, then, is the cooperative development of long-term policies for American education and the vigorous promotion of these policies. Since our Commission has been functioning for only a few weeks, I shall necessarily have to speak this morning in terms of possibilities and plans rather than in terms of achievements and reports. In placing our plans before you I shall ask you not to regard them as definitely settled conclusions of the Commission. They are rather a series of ideas upon which your advice and cooperation is being sought. In the work of our Commission thus far we have asked ourselves what must be characteristic of sound policy-making for American education. I wish to enumerate and discuss briefly some of the characteristics which we think we have discovered, and upon which we propose to build our own program.

In the first place, the schools are but one of an increasing number of social agencies that are maintained at public expense and, therefore, their future programs and procedures must be planned more carefully and efficiently than in the past. Our educational program has developed in a more or less haphazard manner in an attempt to serve a rapidly shifting social order. Much of our progress has resulted from the trial of plausible ideas vigorously advocated. There has been far too little planning of our experimentation, using the term in its broadest sense. All kinds of theories have been tried, some resulting in real progress.

There should be careful planning both in reference to proposed courses of action and experimentation to determine their worth. That is, there should be not only careful appraisal of theories before subjecting them to trial, but also careful planning of the conditions of trial. Of course, there is always the danger that the prior study of suggested procedures be so conservative that many good ideas will not be tried. That is one possible result of the wrong kind of planning. In a great institution like the school system of our nation, certain conditions tend toward inflexibility. As a result, desirable changes in organization and procedure may be prevented or unduly

delayed. Factors should be brought into the situation so that this inflexibility may be overcome and essential revisions be accomplished. It is urgent that leadership be constantly developed from within the education group. It is an important function and responsibility of educational leadership to determine and to put into operation the means whereby essential changes in educational organization and practice may be effected regularly. While the function of the Educational Policies Commission is not actually one of experimentation and research, it will initiate and appraise proposals for change, suggest methods and conditions of trial, and help formulate and institute policies that may be considered desirable.

Second, educational policies in this democracy must be consistent with the political philosophy underlying the democracy. It is obviously true that the course of education is the resultant of all the forces that play upon it. We recognize that there are many groups and individuals who are always attempting, either benevolently or selfishly, to formulate educational policies and to bring about their approval and acceptance. We realize that the Educational Policies Commission cannot ask for a favored position among the many conflicting forces jockeying for a place in the race of policy-making. Any worthwhile contribution on our part must depend on our ability to discover those courses of action most consistent with the general welfare and to formulate and espouse those policies from which such courses of action proceed. The advantage of a planning commission national in scope, representing no partisan or selfish interest, is that it may be able to discover and interpret more freely the flow of the social forces. It is obvious that this Commission will make an impress upon American education more effectively than other groups only as it is able to interpret the purposes of the democracy and the relation of the schools to realization of these purposes in the lives of our people.

Third, American educational policy must be founded on the scientific method. By that I mean that our policies must be built upon the most comprehensive and accurate information

that can be assembled. We know that this is an ideal to be sought but never to be attained because there will doubtless always remain a large area where facts are not available, and where we must proceed in the light of the best judgment that can be obtained. Nevertheless, we believe that it is only when the teaching profession speaks and acts on the basis of professional experience and systematic experimentation that our profession possesses any special right to be heard on educational topics. Without such a scientific viewpoint, information, and experience, our professional opinions possess no prestige over those of any other intelligent citizens. In thus emphasizing the importance of exact and comprehensive information, as stated before I do not imply that the primary work of our Commission is to be the conduct of educational research. On the contrary, we do not expect to spend much of our energy and money in research work of the ordinary type. We do expect to bring together from all possible sources the best information that other agencies can secure. We shall not shut our eyes to the light, no matter from what direction it comes. Thus we hope that our policies will avoid guess work, and will utilize to the full the large amount of careful research which has been conducted in American education.

Fourth, educational policies in America must rely upon persuasion rather than upon dictatorship. The educational system of the United States consists of over 120,000 independent school districts loosely bound together into 48 state school systems. Each of these state school systems is practically sovereign in its own boundaries. To make educational policies under such circumstances requires methods far different in spirit and in form from those appropriate under more centralized administrations. Other nations do not face the same problems that we do in this respect. In some countries, educational policies may be made by the pen of the Minister of Education acting under the instruction of some one political group, or even of some one person. It is easy to make educational policies under such circumstances, but here in America we have not chosen that easy route. We prefer a method

which, although it is more difficult and time consuming, is also, we believe, more enduring. The Educational Policies Commission knows that the policies it recommends will be adopted or rejected on their own merits, rather than on the weight of any authority or prestige that may attach to the Commission.

Fifth, educational planning in twentieth-century America must be closely related to social issues and needs. The problem of financing education is the most obvious illustration of this fact. Without money we cannot have the public school system. Yet the funds to operate the schools are absolutely dependent upon the reasonably efficient functioning of the entire economic machine. This illustration from the field of school finances runs through the whole range of modern educational issues. An educational problem that has no social implications is a problem of minor importance. So firmly convinced is the Policies Commission that we must relate our educational problems to social policy that our first activities have been in this general field. We have established cooperative relationships with the various state planning boards, and with the National Resources Committee. For the National Resources Committee we are preparing a handbook on *Educational Planning in the Light of Social and Economic Planning*. It is expected that the National Resources Committee will use this pamphlet in its work with the various state planning boards.

At our meeting in Chicago next week, the Educational Policies Commission will review this report. We shall also devote one day to a conference with a small selected group of leading economists, political scientists, and sociologists. We shall ask this group of experts to advise the Educational Policies Commission with respect to the implications for education residing in such questions as these: (*a*) the competing demands of the social security programs, the servicing of the public debt, and other governmental enterprises; (*b*) the actual and potential ability of our economic system to support educational enterprises; (*c*) the effect of educational expenditures on the social and economic welfare of the nation; and (*d*) the relationship

between the fiscal administration of schools and of other governmental enterprises.

Sixth, educational policies for America must provide for extensive variations and for flexibility to develop and change from time to time. We do not regard ourselves as a standardizing agency established to attempt to crush all of the schools and colleges in the United States into a single mold. We know we could not do that if we wanted to. We would not attempt to do it if we could. We believe that the conception of *planning* and its processes are more important than any single *plan*. We are far more concerned with popularizing the idea of policy-making than we are in inculcating any central policy in the schools of the United States. We realize that such recommendations as we make must be adapted and adjusted to the infinite varieties of local conditions found in this country. We realize also that changes and uncertainty are the marks of our present civilization and that educational policies must be sufficiently flexible to meet these social and economic changes.

One of our most difficult problems is to develop policies upon which we can go forward with assurance without at the same time running the risk of making our school system into a single lifeless pattern. This dilemma is one which is faced sooner or later by all policy-making bodies, especially so in the field of education. We must look to you and others in positions of leadership to check our proposals rigorously against your local problems and conditions and to accept nothing which does not commend itself to you as being wise and in the best interest of our schools and children. It will be a sad day for American education if the attitude of wholesome scepticism toward Commission pronouncements is ever relaxed.

Seventh, a satisfactory policy for American education must be broad in its scope. Since an increasing per cent of our children are continuing their education into high school and into college, it becomes more and more important that educational planning shall take into account all levels within the school system and all sorts of problems related to the orderly pro-

gress of children and youths from one level to another. In order to make sure that our viewpoint and program are comprehensive, we have attempted to get in touch with the thinking of all sorts of organized groups in education. We have compiled a directory of the scores of deliberative committees now working on national problems in the field of education. We expect to invite to our conferences frequently the chairmen of these committees so that we may know the issues upon which they are working, and so that we may place the strength of the Educational Policies Commission back of such recommendations as seem to be well founded. In the drafting of policies for American education, we wish to omit no group and no viewpoint.

As one preliminary step we have prepared a master list of educational issues which we expect to arrange in the order of their importance and to revise from time to time. Copies of this list are available at the offices of the Commission.

Eighth, and finally, educational policy is of little value until it affects educational practice. The Educational Policies Commission expects, quite frankly, to be aggressive with respect to securing widespread study and if possible widespread approval and adoption of its recommendations. Our Commission is not consumed with ambition to write reports which will collect dust upon the shelves of pedagogical libraries. Of such reports there is already an abundance. Rather than write lengthy reports ourselves for the librarians to catalog and file, we would prefer to study the best reports which are now available and which are appearing all the time, and to throw our influence such as it may be back of these recommendations. We believe that educational policies which do not terminate somewhere and sometime in action are worse than useless.

We have therefore taken certain steps which we hope will bring about the improved activity which we believe to be an essential phase of policy-making. We shall take other steps in the future. We have already appointed a large group of ex officio consultants who will receive the material prepared by the Commission, who will be asked to study it and make sug-

gestions, who will be given free opportunity to call to the attention of the Commission problems upon which policies are needed, and who will, in general, we hope, be the distributing centers for such contributions as the Commission may be able to develop. Our Commission is not going to shrink from the monotonous and sometimes thankless task of advertising its own wares. We are going to do the best we can in developing an educational policy along the lines which I have already described, and we shall make every effort to see that the policies we suggest receive careful consideration throughout the country.

In summary then, the characteristics of valid policy for American education which our Commission has recognized so far are: that it recognizes all educational forces both in and out of the school system; that it serves our democratic system of government; that it is founded on the scientific attitude; that it attempts methods of democratic leadership rather than of centralized dictatorship; that it is closely related to social issues and needs; that it provides for widespread variations and continuous development; that it is broad in its outlook and comprehensive in its contacts; and finally, that it aims at nothing short of constructive, thoughtful action. Those characteristics, we think, are the things that distinguish *dreaming* from *planning*. I need not say that no small group of twenty people can expect to formulate and execute the educational policies of the type that has been outlined. It is a job for everyone, and the Educational Policies Commission will be successful in it only in proportion as it is able to secure the confidence and cooperation of all groups engaged in similar work. We believe that, on the whole, education should be more effective over the years to come if the policies guiding it are planned rather than left to the caprice of chance. The future unwinds more truly in response to the present need when an attempt is made deliberately to produce that effect.

ALEXANDER J. STODDARD,
Superintendent of Schools, Providence, R. I.;
Chairman, The Educational Policies Commission

Regional Cooperation in Higher Education

THE subject for this discussion is a very broad one. It may cover almost anything one might wish to say about higher education. During recent years I have become very much interested in cooperation among schools and colleges. There is little doubt in my own mind that it is in this field or by this process that our next great advances in education in this country may be achieved.

The spirit of cooperation among colleges and universities has already made notable progress, but it is of comparatively recent origin. There have been many handicaps in its development. The large number of so-called colleges in the United States and the ease with which weak institutions may be established have seriously hampered efforts in this direction. During most of its history higher education in America has been very independent and separatist.

I have no desire to deal with the general subject of cooperation. You are well aware that during the last forty years the great standardizing agencies, such as the North Central, Southern, that of the Middle States, and other groups, have accomplished notable successes. You are acquainted with perhaps fifty organizations which tried to foster cooperation in one form or another. These include not only the accrediting agencies, but professional groups, such as the Association of American Law Schools, and great numbers of others which deal with individual subjects, such as the American Chemical Society and the like. All these have their places and you know their general purposes and their programs.

This morning I would like to deal with cooperation in a slightly different form. I would like to think of it as a possible solution to some very difficult problems in a particular section of the United States. As you are well aware, the various regions of our country differ from one another in a great many ways, but there are various groupings of states that have problems of a similar nature. You will, of course, think of New England, the West Coast, the prairie states of the Midwest, and many others.

The particular region which I have in mind is that comprising the seven southeastern states—North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, and Tennessee. This is really a great empire in point of square miles, containing more than 342,000—more than one-tenth of the United States. It is *five times* as large in area as the New England states. In population these seven states also make an impressive showing, having 16,558,383 people—more than one-seventh of the inhabitants of our country.

These statistics make a gratifying showing, and it would seem that in this section it ought to be a simple matter to develop higher education; but I wish to set over on the other side some considerations that reveal the seriousness of the problem.

Nearly six million of the people in the seven states are Negroes—more than one-third of the entire population. The South does not recognize racial intermixture in education, in religion, in social life or in most other relations. This means that in even a small community there must be the white school and the Negro school—the latter often much less efficient than that for whites; there must be a church for white Baptists and one for Negro Baptists, and so through all the various relationships there is a double burden on account of the two races. This would not be so bad if the economic conditions of the states were of average quality, but this is far from true.

The following figures will indicate something of the financial problem which is involved in operating education on a high level:

State	Wealth per Capita	Income per School Child	Expenditure per School Child	Illiteracy
Alabama.....	\$1,244	\$1,018	\$45	12.6
Florida.....	2,358	1,262	69	7.1
Georgia.....	1,306	1,263	35	9.4
Mississippi.....	1,216	930	40	13.1
North Carolina....	1,703	999	55	10.
South Carolina.....	1,385	1,075	44	14.9
Tennessee.....	1,773	1,272	47	7.2
Average.....	\$1,569	\$1,117	\$48	10.4
U. S. Average....	\$2,918	\$2,481	108	4.3

As the figures just given will indicate, the wealth per capita in this southeastern group of states is only a little more than half of the average for the entire country. The income is not stated in terms of the whole population for those figures are not available, but rather in terms of the number of children of school age; that is, between the ages of six and eighteen years. This income is less than half of the average for the United States. The expenditure per student is based only on figures for public education. It does not include what is spent in private schools. As the South is notably lacking in private schools in comparison with the East, for example, you can readily see that even the low figures given do not state the whole comparative story.

As might be expected, the illiteracy column shows figures in inverse ratio to the expenditures of education. These figures give a startling picture.

Not only do poverty and the intermixture of races make it difficult to attain high standards of education, but the tendencies of college development have been a handicap. The South thinks very independently on all matters except politics. The denominations of this section have been eager to establish colleges and they have regarded them as mission enterprises rather than as educational responsibilities. For example, in the small state of South Carolina, there are four Baptist colleges for women. All of these were of the four-year variety, but two of them have recently been reduced to the junior college status. The Methodists of Georgia have five institutions in which their women may secure higher education; until recently the Baptists had quite as many. Not many years ago, I listened to a serious argument in the Synod of Georgia that the Presbyterians ought to establish seven colleges for women, one in each Presbytery, though the denomination has only 30,000 members in the state.

There are now in the seven states 74 private or denominational four-year institutions for white people and 29 junior colleges. The competition for students and for support from the various denominations is very serious.

We might expect the various governments to work out careful systems of state education where overlapping and competition would be eliminated, but this is not true in many places, and certainly not in the South. As a matter of fact, most of the state colleges have originated because of local pride and political influence. They have later been brought under state control by politics. In their competition both for legislative support and for student patronage, they have often gone far beyond private institutions in the realms of doubtful propriety. In Georgia, for example, until very recently there were 26 state institutions of so-called higher education competing with each other. Fortunately in Georgia there has been a merger of control and some schools have been eliminated, but even now there are 19 colleges or professional schools and many of them are competitive.

In the seven states which we are considering, there are now 109 four-year institutions and 47 junior colleges for white people, and 32 institutions for Negroes—188 in all. It is an educational burden which simply cannot continue, and many of the weaker schools will evidently find it necessary to close. In the meantime, however, the scramble for students on the part of weaker schools brings into college almost any high school student, however poor the preparation may have been, and the general level of college efficiency is seriously impaired.

There is one other factor about our situation which I would like to bring to your attention. In a recent study made by Professor Gee, of the University of Virginia, under the auspices of the Social Science Research Council, it is clearly established that there is a constant draining from the South of the best scholars and most promising graduate students. This is true because other parts of the country which are able to afford better salaries, or easier hours of work, or better fellowships, attract these promising men and women; so that our region is impoverished, not merely in material things, but also in its intellectual leadership.

Now I have drawn a picture that is quite dark enough. There are many other regions of our country that can draw

dark pictures also. The shadows might not be quite the same as here, but they would be as dark. In New England it may be the influx of foreigners and the exodus of native whites. In the far west, the oriental races may make complications. In other sections, the strife between labor and capital is accentuated. You will know the problems in your own particular section.

In our seven southeastern states there are also bright spots. The white people are singularly homogeneous in race, and intelligence tests show that they are quite capable mentally. In spite of adverse conditions, many of the high schools and colleges have maintained standards which are equal to those in any part of the world. The students entering universities in other parts of the country have won more than their proportionate share of honors. Many other points could be given which would indicate favorable advantages for our section, but I am not intending to debate with myself whether it is good or bad to live in this particular part of the country. The question which I am raising is whether or not there may be cooperation among higher institutions which will greatly improve the educational condition. This is the particular point on which I wish to speak.

Many of us in the South have felt that there is not enough available money or intellectual leadership, which may be obtained for the salaries we can pay, for individual institutions to attain eminence in graduate and professional leadership. It seems that there must be some more effective way to establish educational standards and to develop our resources for an educational renaissance. As a matter of fact, the Southeast is the richest part of the nation in actual resources, but these can only be developed as education unlocks the secret of our potential wealth.

In the light of all the needs and of our present resources, we have begun to think in developing not merely individual institutions, but rather *regional centers* where cooperation may work out results not hitherto attained.

One of the centers about which we naturally think is At-

lanta. It is almost the geographical center of the seven states, and is ideally located as far as climate and transportation facilities are concerned. In this city there is now being carried on almost every form of general and professional training in the whole field of higher education. A survey five years ago showed four institutions undertaking to give degrees in business administration, five giving degrees or specialized training in the fine arts, five likewise undertaking to give liberal arts degrees, two offering engineering, two giving degrees in theology, three law schools, a school of medicine, a dental college, and three graduate schools. Naturally there was a great deal of overlapping and duplication and quite a bit of unnecessary competition.

Three years ago, the officers of Emory University, Georgia School of Technology, and Agnes Scott College agreed to enter upon a plan of cooperation which would seek to unify and to improve the work done by the respective institutions and to seek to develop other educational work greatly needed in this part of the South.

A grant of \$5,000 was made by a local Atlanta foundation for a study of the situation, and experts were brought in from all parts of the country. Dr. George A. Works, of Chicago, secretary of the North Central Commission on Higher Education, served as the chairman of the group. Already the plans have made considerable progress, and have been approved by the various governing authorities. It was thought at first that it would be impossible for the institutions to agree among themselves. Agnes Scott is an independent institution in control; Emory University is operated under Methodist auspices; Georgia School of Technology is state controlled. There have been no difficulties encountered so far.

It has been generally agreed that the most needed factor in higher education just now, not only in Georgia, but in the South, is the development of graduate work which would enable students to take a strong Ph.D. degree. All the institutions have agreed that they will cooperate to this end as a first objective. The work would be largely centered at Emory

University though the University of Georgia, 60 miles away, will likely cooperate in this particular development and it doubtless can be arranged for the degree to be given either by Emory or by the University of Georgia Systems.

Duplications of work among the various institutions can easily be eliminated and plans are already being formulated for the development of educational enterprises which are lacking in this vicinity, such as a school for training social workers, for example.

Already the Atlanta Conservatory of Music, the High Museum of Art, and Columbia Theological Seminary are asking if they may not be affiliated with the University Center Project.

A campaign is being organized for the raising of \$6,000,000 as a beginning toward unified work and all of the institutions and organizations would work together for the achievement of this common purpose.

It will take many years for a real program to be achieved, but with the nucleus for all types of needed education for this part of the country and with the enthusiasm for a common purpose, there is no doubt but that money can be obtained from the great foundations; and support can also be secured from individuals who have not hitherto been enlisted in the general cause of education.

A fine example of institutional cooperation has been worked out in the Atlanta area by a number of institutions for the higher education of Negroes. Atlanta University was a co-educational institution under the auspices of the Congregational Church. Morehouse College was a Baptist institution for men, and Spelman College represented the same denomination for women. These institutions united, developing Atlanta University into a graduate and professional school. Soon after that Morris Brown College, representing the African Methodist Church, moved on the same campus; and arrangements are about to be consummated for Clark University, representing the Northern Methodist denomination, and Gammon Theological Seminary, under the same auspices, to move

also from their present site to the University center. The General Education Board has built for these institutions a very fine library building, and they have found that their cooperation has saved a great deal of money and made for real efficiency.

A second center in the South where there seems to be a fine opportunity for cooperation is in the eastern part of North Carolina around Durham and Chapel Hill. Duke University is developing rapidly, and the University of North Carolina has also done strong educational work. For many years these institutions have been traditional rivals, and almost no cooperation has been possible.

In the last few years this spirit has been changing and now real progress is being made in cooperative library service, and plans are being laid for much more extensive cooperation in graduate and professional work.

A third center which gives promise of regional cooperation is at Nashville, Tennessee, where Vanderbilt, George Peabody College for Teachers, Scarrett Training School, the Y.M.C.A. College, and other institutions are located on practically adjoining campuses. Plans for erecting a library for the joint service of all these institutions are well under way, and especially in the graduate field there is a large opportunity for cooperation and growth.

A fourth center in the South which does not lie within the geographical limits of the seven states, which we are discussing, but which is close enough to be of service is the city of New Orleans. Here there has already been some successful merging of interest for Negro institutions, and there are possibilities for cooperation between Tulane University, Loyola University, and Louisiana State University in some of its professional work. There seems to be less immediate promise for cooperation here than in the centers above mentioned, but there are possibilities which may be developed later.

There are other cities where good educational facilities are afforded, and there are some strong individual colleges or universities; but apparently the centers named offer real op-

portunity for building university facilities that may compare not too unfavorably with the educational work in New York, Boston, or Chicago. It will take a long period of time and a great deal of money to accomplish the objectives which have been set, but only through cooperation may there be any hope to provide soon for first-class graduate work leading to the Ph.D. degree or professional training that will have nationwide validity.

If real university centers can be worked out through cooperation, it is believed that many of the strongly intellectual students of the South would prefer to do their graduate work in their own regions, and would thus help to provide a leadership that would touch effectively the various educational strata in the southeastern states.

It is earnestly hoped that not only may there be cooperation within the local areas of these various centers, but also between the centers themselves. It is not to be hoped that within a long period an Atlanta university group, for example, will be able to offer advanced graduate work in all fields. If it could emphasize certain phases of the graduate possibilities and stir up interest; if the Durham group would by agreement stress other fields; and Nashville likewise choose still different points for emphasis, the southern states might come to have a well-rounded program for advanced study.

Those who are advocating cooperation in these various centers believe that strong universities thus located would exercise a wholesome influence throughout the territory in stimulating high standards, in providing comparative tests of achievements, and generally in raising the quality of instruction in state schools, in denominational institutions, and in junior colleges.

There is a service which the American Council on Education or some other similar organization may render in the southeastern section of our country. There ought to be some testing service and some cooperative examinations which would enable the 156 institutions for white people and the 32 colleges for Negroes to measure themselves in terms of what

their neighbors are doing and also in terms of what national standards should be.

I may illustrate what I have in mind by the work that Dr. F. S. Beers has been doing for the University System in Georgia. The uniform testing program for all the institutions under state control in Georgia is relatively new; there are some people who question its validity; but, on the whole, it has aroused a great deal of interest among the institutions themselves, and a fine *esprit de corps* in improving the quality of the work which is done.

As yet the private and denominational institutions of Georgia have not cooperated very fully in the program, but they are becoming interested and sooner or later there will be state-wide cooperation in certain simple measurements. If the American Council on Education could undertake for the seven southeastern states something that is similar to the Georgia experiment, I believe it would have a wholesome effect. The institutions in the South would not object so much to measuring themselves with their neighbors as they would to undertaking a national program. If experiments are ever gotten under way, it would be a rather simple matter to put the regional results against the test of national accomplishments. For many institutions the regional testing would show up quite satisfactorily with testing in any other part of the country, but for the region as a whole, there would probably be decisive evidence that improvement must be made.

As has already been pointed out, there are entirely too many institutions in the seven southeastern states for proper support. If there may be effective cooperation in certain centers, if denominational schools will agree to merge, if the weaker schools can be shown that they are not producing results that will bear the light of publicity; if these things can be gradually accomplished, then the outlook for higher education in the Southeast will be greatly brightened. Only as higher education progresses may there be real hope for stronger secondary and primary training, and only when edu-

cation is general and effective can there be a permanent cure for economic and social improvements.

The South is by no means the only part of our country which needs cooperation in its educational program. Possibly it is the most needy section. If this cooperation can work beneficent results in this part of the nation, surely it can be used to good advantage in other sections of the United States. I firmly believe that closer college cooperation will feature the next great advances in education.

J. R. McCain,

President, Agnes Scott College;

President, The Association of American Colleges

Trends in Professional Education

I

THE clamor for educational adjustments grows insistently from day to day, swelling in its volume to a veritable national demand. Like the muezzins who spread the announcement of the hour of prayer from their minarets around an Arabian town and from town to town around the entire country, so our modern educational prophets pass on the clamor for a change in educational processes from mouth to mouth. Some insist that there must be revolution in our schools. Some would be satisfied with an accelerated evolution. Others frankly say that the whole scheme of things is completely and entirely wrong and that something else must be found to cover the nakedness of our illiteracy instead of the threadbare garments that we now call education. And still others insist that we should abandon all efforts at educational development of the masses and return to a "rugged individualism" in our attitudes and dealings between man and man. Sometimes these demands are outspoken; sometimes they come to us in a whispered innuendo. That there is dissatisfaction, however, on this, many diverse schools of thought seem to be in complete agreement. The educational diagnosticians have been numerous; they have been busy even if a little precipitate; they have been daring even if a little foolhardy; they have been radical even if just a little enamored of their own prophetic character. Like Isaiah, they already see the world in ruins before it is ruined, but unlike Isaiah they seem to offer no remedy against the day of ruin; sometimes one might suspect that they enjoy their role as prophets of evil and that they would not wish to see the ruin prevented.

It must be confessed that the depression gave the pre-depression prophets their big opportunity. They are fond of pointing out that they told us so. And today, they are just as fond of telling us that something must be done to stop the

coming of another depression. In that older day, as measured by years it is not so very old but measured by world changes it might just as well have been three eras ago, there was some justification for such views as that of Kirkpatrick who:

Believes that pupils and students . . . are said to find new and better ways of thinking and living in probationers required to learn carefully the ways of beliefs of their elders . . . we must look to our schools for creators not imitators . . . our school youth must be permitted to face their own problems and their own responsibilities.

But, today, even this is somewhat antiquated thinking. To-day we would deny, if we are most in line with present-day advanced thought, that there need not be a task that is set for our youth, not even the task of experimenting with themselves or of facing their own problems and responsibilities, or of determining for themselves the course they will take. We are rather looking for the magic formula which will translate the theory of individualistic self-determination into a practical program. Just how the change came about, anyone of us may determine for himself. No doubt the stresses laid down by biological thinking upon individual development has not been without its effect upon educational thinking. The emphasis placed by the psychologist upon individual differences has been taken out of its context. The insistence of the political demagogue that, despite the socializing trends, it is only in a socialistic or communistic community that the individual is freest, has also contributed its share in molding many of the trends in educational thinking. Personally, I would hazard the guess that the trend towards individual self-realization in our educational processes has at least been accelerated if not re-emphasized by the political and governmental assumption of responsibility for the masses. Is it not always thus in world history? When a new mass movement in one direction takes place, are there not always to be found those who re-clothe the thinking that has been in the fresher garments of the new thought and thus make such occasions into the propaganda for their previous gospel? In social governments, we find at least

verbal emphasis upon individual values; in individualistic governments, we find at least verbal emphasis upon community thinking. Whatever be the explanation, we will probably admit that the educational world is not as simple and as set as only two decades ago, and perhaps even one decade ago, as we thought it was. Then we whirled through space more or less condensed and smooth as is our own earth in the solar system. Today we resemble rather the fire-ball that we call the planet Jupiter. It might, of course, raise an astronomical argument whether we are younger or older in our development by reason of such a planetary metamorphosis.

Turning now to the more formal world of education and leaving the world of broad speculation, we are not left altogether without signposts for our analytical thought even if the signposts are erratic in pattern and even if they lead we know not whither. This much is certain—we have without doubt left the old, so long the accepted and useful land of educational values of the last century, far behind us. In those days, to be an educated man, meant something rather definite. It meant a fairly well-defined tradition of cultural studies; a philosophical attitude of mind towards history and tradition; it meant a recognition of differences—philosophy, science, art, literature, theology were compartments within which men could be classified with proper designations of their interests, compartments with walls high enough to separate interests yet not with walls so high but that one might easily glance with a not too disinterested eye into all the other compartments. In those simpler days, the world had some understanding of the areas within which an educated man would be expected to move with relative confidence and familiarity.

Now, all of this is today, for good or for evil, it is not for me to say, a picture of the past. The walls between these compartments have worn thin; they have, in fact, broken down at ever so many places. An educated man today may still be regarded as quite educated even though he has not pigeon-holed his intellectual acquisitions in five or more compartments. As a matter of fact, we come very close to our present

problem when we hazard the guess that today a man may be considered educated even if his interests lie in but one major field and, even in that major field, within a rather confined area of that major field. It is true that much of this has been brought about by the trend in all our intellectual interests. There is more education if for no other reason than this—that there are more people who have at least a fair fragment of education. There are more persons working in intellectual fields. There is an incredibly more rapid accumulation of things to be known. When there is a plenty of anything, it seems always to be purchasable at a lower price, and so perhaps we have come to lay less stress upon the value of education. It is certain, to me at least, that we have broken down a formerly existing correlation between knowledge and education. In that older day, to know more was to be more; today, we may know more without necessarily growing in the fullness of being. Knowledge was formerly considered power; today, power is derived much more than formerly from sources that have no necessary connection with an educative process.

And again narrowing our field of intellectual survey still more and confining our thinking within the framework of formal educational processes, these philosophies seem to find their interpretation in the practical aspects of our curricula and our administrative procedures. It is true we have worked persistently at formalizing these administrative procedures. Thanks to the dictatorship of the registrar, the larger masses of students are much better regimented than were the smaller masses of an earlier day. There is less fear that any one individual in the huge masses that seek our high schools and colleges and universities will escape with fewer than the required number of units and credit hours. Our manifold distinctions in courses, our rigorous sequences, our prerequisites and sequence requirements—all these and the countless other alleged guarantees of educational adequacy co-exist as in all other social revolutions with philosophies of education that point in quite the opposite direction, as if the orientations of the individual were one thing and the orientations of the in-

Our prophets are demanding that we orient educational procedures with reference to world trends and social change. No one has adequately defined for us just what these world trends are or these social changes are to which we should adjust our educational procedures. And yet, we are asked to adjust.

To come down to more practical details and to leave abstruse considerations, it has been pointed out that the emphasis upon vocational and professional education is one of the best means of adapting the educational processes to modern needs. One should logically demand, in estimating the value of such a requirement, what is meant by a vocation and what by a profession. One is curious to get an adequate differentiation between the processes of carpentry and the practice of medicine, between a course in wood turning as wood turning and wood turning as occupational therapy. It is true that it is hard to put these things into words. Many have tried and many have failed, and, therefore, I could labor under no illusion that I could say what others have not been able to say. Whatever one criterion might be adopted to differentiate between a trade and a profession, it breaks down at some point of interest when broadly applied. If one uses the criterion of intellectual presupposition, one must perforce conclude that any handicraft can be built up upon the largest possible theoretical foundation. If one uses the criterion of skills to designate a practical art, one is reminded quickly of the artistry of surgery which thus far, except in the days of centuries ago, no one has dared to designate as a trade. If one becomes more subtle and uses as a criterion to differentiate a trade and a profession by the concept self-consumption, one can easily be led into absurdities by showing that any trade, if it is adequately exercised in an unselfish spirit, renders the need of the further use of that trade less and less likely. Thus far, for example, no one has designated plumbing as a profession just because the plumber may and really could do an "adequate job" which might render the need of a plumber to repair his plumbing unnecessary for many a day to come. And so all

of these criteria break down at some point and one is perforce coerced into the admission that these intellectual interests, like so many human interests, defy the taxonomic tendencies of the educational formalist.

We might then consider the distinction between academic and professional education for just a few moments. The academician still insists that there is a distinction. The "professionalist" insists just as strongly that if there is a distinction there might just as well not be. It may be the old story of the shield that is silver on one side and gold on the other, but it may be that there is merit in the debate. Again I rejoice that I need not be the arbiter in the dispute.

Somehow, in our thinking, we classify areas of human interest and areas of curricular interest quite differently, even though we have reached the point when we give bachelor of arts degrees for course sequences that imply neither art nor the arts and bachelor of science degrees for the completion of curricula that have in them no whit of science and that are themselves far from scientific. The traditionalist still insists upon differentiation between cultural courses and professional courses. The progressive who claims to be more sincere insists that such distinctions are entirely out of date. As a matter of fact, cultural courses are not the same as humanistic courses and, by a strange irony of history, humanism is humanism because it saw human values in every human interest and, therefore, presumably too in professional interests. But today, the classical languages and English and, at least in those schools which do not classify history as merely a social science, history, too, are dubbed by the college catalog as humanistic and presumably, therefore, as cultural courses; but nursing and laboratory technology and dentistry are professional by antithesis. What shall we do about it? One might grant the validity of the concept of a cultural course, but the "professionalist" contends that courses in torts or child welfare or surgical anatomy are just as cultural, depending upon the teacher, the approach and the method of teaching, as are courses in Euripides or Indian philosophy or the ethical con-

cepts in Mosaic law. The "professionalist" may grant that the classicist has much and valid thinking to say for himself, but he insists also that the classicist has no business erecting partitions between a classical museum and the chemical laboratory basing his architectural efforts in wall building upon the very tenuous foundation of cultural values. These distinctions, so it is contended on all sides by the pacifists who placate educational differences of opinion, seem to rest upon somewhat arbitrary definitions. A course in organic quantitative analysis may have cultural value of the highest order even though surely only few humanists would admit such value, just as a course on the love sonnets of Shakespeare may be as dry as a mathematical Sahara even though it should throb and pulse with every emotion of the human heart.

If this line of reasoning is at all valid, I should like to hazard three simple theses on the relation between academic and cultural education. These three theses are briefly these:

1. As a preparation for life, education, be it academic or professional, is one;
2. Educational processes are diverse, and academic processes should be a foundation for professional educational processes;
3. A profession itself should regard the processes which it defines for its self-development and not leave this responsibility altogether in the hands of those not of its own profession.

Let me address myself to a brief discussion of each of these three theses. We are here accepting the functional definition of education which states that education is a preparation for life. In such a definition one must understand more fully in what sense one talks of life and secondly, what may be meant by preparation for *life*. It must be pointed out that the life of a professional person, of a physician or a lawyer or a dentist, does not altogether consist in the exercise of his professional functions. Even a lawyer plays golf and a dentist appreciates music and a doctor enjoys reading a non-medical book; it is clear, therefore, that in the processes of education,

the life for which our educative processes prepare a professional man is much more than merely the exercise of his profession. The professional man's life is at the same time a human life. As for the preparation, it is purely arbitrary to assign certain preparatory functions to one school and others to another. It is my contention that a school of medicine or a school of law and, let us hope, a school of nursing, or a school of dentistry, or a school of engineering can and must in a measure prepare its students for all the aspects of their life and not merely for some of the aspects. The school assumes responsibility for the student of medicine, the student of law or of nursing, and not merely for the nursing or the legal or the medical aspects of that student. Any other concept than this as the basic philosophy of a school, or as the objective to which the school aims, takes the school out of the classification as a professional school and puts it into the classification of a technical school. It is my contention that, if a person comes to a school of medicine with a profound appreciation of Greek literature or history or the niceties of the English language, his very professional preparation will under proper auspices intensify those appreciations and make of a man not merely a physician but a deeper lover of his Greek or his history or his English. It has been repeatedly said, and well said, that to understand the microcosm it is necessary only to understand fully any one of the all but infinite number of microcosms all about us. Any one of the fields of professional interest like the older and the major fields, such as medicine or law or engineering, or be it one of the newer and as yet minor fields, such as, for example, that of dietetics or of institutional administration, can and, in the truest concept of professional education, must yield human values and human appreciations in just as true a sense as we admit are yielded by our study of the Greek poets or the Latin orators. If all of this is granted, where, I ask, is the distinction between academic and professional education?

The so-called professional courses can and do yield a harvest of culture, of refinement, of appreciation in addition to

their technical content. We might choose illustrations from a vast number of sources. Surely I may be pardoned if I choose mine on this occasion from the field of medicine. Can there be anything more human in its appeal, more educative in the appreciation which it yields of human tragedy, more suggestive of the deepest stirrings of the human heart than the daily and hourly contact which the student of medicine has in his out-patient practice with the ills and sufferings of humanity? If it be objected that the student of medicine pays little attention to anything but the mere technical symptomatology which he is evaluating, my answer can only be that such need not be the case and, if necessary, he must be shown that behind a venereal disease looms a wrecked home; behind a mental obsession there fibrillates a broken heart; through the shadows of a Roentgenogram of a tubercular chest he must see the writhing agony on the face of a love-distracted husband. These things have literary cultural educational values that are not only equal to the dramatic incidents and literary descriptions through which we teach our human appreciations, our appeals for character development and our stresses upon literary expression but, in addition, they have the merit as educational instruments of immediacy and of reality.

As for the mental faculties which professional education on this high level can and must call into play, ever so much has been said, but ever so much more remains still unsaid. We have not probed even the shallowest depths of the educational processes in the formation of the professional man. Again, let me choose my illustrations from my closest surroundings. Through our educational processes, we attempt to develop many capacities in our students. Call them by whatever diverse names you wish, depending upon the school of psychology in which you have been brought up, we will probably all recognize them if I describe them in such older terms as logical power, imagination, both reproductive and creative, memory with its many different specifications, emotional control, appeal to sentiment, determination and will power. Now all of these and ever so many more might well be enriched to

an all but unsuspected degree through our professional education. We may deeply admire and try to teach our students the mental "mechanisms" by which Francis Thompson can pass from the simple thought that he sought escape from the anxieties of conscience and the beckoning voice of Christ calling him to a better life and his expression of this thought in these lines:

I fled him . . . down the labyrinthian ways
Of my own mind and in the midst of tears
I hid from him and under running laughter.

But, I ask you, are these mental processes so very different in their mechanism, in their significance, in their dramatic effectiveness than when a white-gowned pharmacologist steps from his microscope and the seclusion of his laboratory to the bedside of a patient in the crowded ward and suddenly sees with a vision of inspired genius the connection between the relaxing effect of magnesium sulphate on the paramecium under his microscope and its corresponding effect upon a human patient in a state of tetanic convulsion, thus rescuing him from a certainly anticipated death, and by further extension of the creative and synthetic imagination changes the death rate from tetanus during the World War in a short period of not more than three or four months from more than 75 to less than 10 per cent? Of course, such instances are extremely common, particularly in recent biological history. They might be multiplied here to the point of tedium. If it be objected that I am choosing my examples from a field which is peculiarly rich in its romantic or its dramatic appeal, I can only say that, first of all, such instances, at least in so far as they effect individual lives, are common enough in the life of each medical student and, secondly, every one of the professions, at least of the major that lay even approximately an adequate claim to such a title, must perforce afford ample illustrations of the same principle. In illustration of the first part of this last statement, let me ask you whether you have ever had the satisfaction of having a medical student come to your office to tell you

of his experience in delivering his first baby. I have seen them come to me, their eyes "with fine frenzy rolling" directly from the hovel and the bedside of some poor Negro mother to speak to me of the thrill of having done again what has happened on indescribably numerous occasions in the world's history, but also of the tears of gratitude in the mother's eyes, of her overwhelming joy and of the satisfaction which the student himself felt in the knowledge that some poor Negro waif is going to be called by his own first name in recognition of the "doctor's" services.

As for the second part of my statement which I have just made, I might cite actual cases of the thrill of the laboratory technologist when she either sees in her findings under the microscope the corroboration of a physician's clinical diagnosis and realizes the significance of the tiniest drop of blood in establishing a suspected streptococcus hemolyticus infection in the saving of the human life or, as happens none too rarely, when she must approach the physician and report negative findings and must thus challenge the physician to renew his struggle with an as yet unknown foe who is strangling his patient. Once I talked to an engineering student who had followed the construction of a bridge in an architect's office from its first conception on the tracings to its dedication. On another occasion, I spoke to a law student who even prior to his graduation had just completed his first effort at compromise in a delicate case involving equities and thus insured the continued safety of three homes involving no fewer than six adults and seven children. On still another occasion very recently I heard a law enforcement officer, who, by the way, considered himself as a professional man, describing in vividly glowing terms the duties that fell to his lot and who was carried away for the moment by his superb exploit in tracing a wayward boy through the endless mazes of underworld haunts and who finally brought him a willing captive not to the criminal court but to the side of a paternal and sympathetic juvenile judge. When such cases occur in one's life—and surely each one of us could enumerate them with just a little thought—one real-

izes that the poetry of life is not always written in words, musical and suggestive as they may be; that dramatic incidents are not the rareties that have found expression on canvas under the masterful brush of the painter, but that on all sides of us the men who lay no claim to being poets or dramatists, tragedians or comedians, painters or sculptors or historians are actually bringing about climaxes and crises worthy of the expressive power of a Vergil, a Dante or a Shakespeare, of a Murillo, a Raphael or a Titian, of a Wagner, a Tschaiikowsky or an Elgar.

The point that I am here making is that, for a preparation for life, the educational processes which we have called cultural and those which we have called professional are really one in their objective. Any man given capacity and application can draw out of one, equally as out of the other, those elements of self-development which result in culture and refinement, in that self-development which, when it is attained, reveals to us the hidden significance of life, resolves the complexities of life into its simplicities and places before our vision now the sweetnesses and again the drama, now the unsuspected humor and again the even more unsuspected tragedy, now the sublimities and again the incredible bathos of every day human life in the midst of which "we live and move and have our being."

And yet when all is said and done, there is validity in the distinction between professional and academic or cultural education. After all, the immediate aim of the two is different. If we must be simple, let us avoid a certain amount of speculation on the underlying philosophies and let us suggest, for the purposes of differentiation, that academic or cultural education concerns itself predominantly even if not exclusively with the mental content, and uses instruments largely of the mind and formulates problems largely in the mental realm; whereas professional education must give more attention to the development of skills, the use of instruments on a physical plain and the formulation of problems concrete in character, without, however, neglecting the mental content in each of these

various aspects. With such a working hypothesis for the purpose of differentiation, it is easy to see why the educationalist will regard history or literature or religion or philosophy as cultural subjects, while he regards biochemistry or pleading or mechanics or orthodontia as professional subjects. Regarding these differentiations, I should like to invite attention to a few tentative and half-formed generalizations which have gradually impressed themselves upon me throughout my contacts in both of these fields of education.

First of all, there is only one Rome, but many roads lead to Rome. There is only one Van Dyck, but there are many painters who belong to the Vandyke School. I have already hinted at the thought that to my mind culture is not to be achieved only by one broad highway but along any one of very numerous roads which all converge upon a well-known and deeply appreciated objective, that culture which we are all striving for in our educational processes. How are we to use these processes? The educationalist, to distinguish him from the educator, is concerned with the instruments of his own profession, and so it is not surprising that he has thought of the achievement of culture through curricula and courses, through credit systems for differentiated efforts and achievements. He has perhaps, therefore, by force of sheer necessity, found it to be quite impossible to evaluate as it should be evaluated, the personality of the teacher. I have the highest regard for Mark Hopkins' log and the student at the other end of it, even though the humorists have recently told us that the log has been sawed up to form state boards; but I wish to point out that in illustration of my thesis I might just as well have put Osler where Mark Hopkins is alleged to have seesawed. I think Osler would have reflected and speculated and educated just as effectively while he seesawed. In fact, I believe we might all agree that quite a number of persons of our acquaintance who are not necessarily classicists or professors of English or professors of history but who rather claim humbler titles, such humbler titles as professor of biology or a professor of internal medicine or a professor of engineering,

might have educated and seesawed almost as effectively. I might mention Wheeler, for example, or Jennings or Steinmetz or Van Eten, not to speak of hosts of others.

The educational process, after all, finds itself focussed in the man who uses the process. I cannot ever forget that it is D'Arcy Wentworth Thompson, the director of the International Committee for the investigation of the North Sea, who penned the lines:

Nigh forty years ago, I first stepped out on the east-windy streets of a certain lean and hungry town (lean, I mean, as regards scholarship) where it was to be my lot to spend there-after many and many a year. And the very first thing I saw there was an inscription over a very humble doorway, "Hic mecum habitant Dante, Cervantes, Molière." It was the home of a poor schoolmaster, who as a teacher of languages eked out the scanty profits of his school. I was not a little comforted by the announcement. So the poor scholar, looking on the ragged regiment of his few books, is helped, consoled, exalted by the reflection: Hic mecum habitant. . . . Homer, Plato, Aristoteles. And were one in a moment of inadvertence to inquire of him why he occupied himself with Greek, he might perchance stammer (like Dominie Sampson) an almost inarticulate reply; but more probably he would be stricken speechless by the enormous outrage of the request, and the reason of his devotion would be hidden from the questioner forever.

I cannot but think that, when such a man who can write thus undertakes the biological investigation of the North Sea, results of value for human welfare cannot but emerge.

If it is objected that men such as these were educated men before they became scholars in a restricted field, I shall enthusiastically and whole-heartedly agree with the critic. The point is that I am not contending that there is not a place for cultural curricula and courses or rather, let me say, for cultural processes *par excellence*, but I am contending that culture is the exclusive effect of certain kinds of educational processes. I shall admit as, of course, I cannot but admit, that certain subject matter lends itself particularly well for imparting what we have traditionally referred to as culture and refinement,

but my complaint is that in too many quarters that end result is attributed to content matter rather than to the pupil and his instructor. My contention is that we have developed stress on the wrong fulcrum and that it is not surprising, therefore, if our seesawing is somewhat higgledy-piggledy and our mental semicircular canals have thus been over-stimulated to the point of educational dizziness. Should we not rather lay our stress upon the development of teachers in the professions, upon the development of men who by their statuesque character, by a certain epic grasp of the significances of life, by their larger interpretations of the meaning of manhood and womanhood, rather than by mere knowledge, even though they themselves contribute to the creation of such knowledge, can impress students both in the academic as well as in our professional schools. I know that all schools would welcome such men, and the rejoinder to my remarks is just as patent to me as it is to any one of our listeners. The problem is to find such men. But if we place our hands in our lap and commit ourselves fatalistically to a *laissez faire* policy in such matters, we are not applying to the solution of this problem that acumen and sense of relative values which we have brought to the solution of many another problem in the educational field. Let us look for the man when we promote teachers, when we make our administrators and our leaders.

By an extension of these same remarks I would apply the same analysis to the problem of student selection with perhaps one significant stress. We cannot but be sympathetic with the antithesis between the aristophilic and the demophilic ideal in the choice of our students. In a democracy, there must necessarily be found two kinds of schools, two kinds of educational policies and processes. On the one hand, however, I should want to endorse, with all the emphasis I can place upon the topic, the importance of academic guidance, vocational guidance, personal guidance, hygienic guidance and the focussed correlation of all four in the educational process for the development of each individual; I should like to stress the commanding importance of the discovery of individual differ-

ences, the delicate differentiation of techniques in the evaluation and utilization of these differences, and the sympathetic and diplomatic attitudes which we as teachers have developed in translating our discoveries into differentiated programs. I would, however, propose an even further step in all of this. I should want to discover an adequate number of individuals who can make the dry bones of psychological tests and social tests for response to environment into living realities. Somehow, in all of the work that has thus far been done, it impresses me that motivation has been lacking. The work has been done, I must admit, and, from personal observation in some schools, the work has been superbly done. Records have been accumulated, but unfortunately sometimes only to gather dust. In still other schools due to the presence of a deeper commanding and appreciative personality, the work which records are supposed to facilitate has been achieved without records even though, I believe, it might have been done still better if those records had been available. The key which will unlock the wealth of cultural content contained in our courses and curricula must be in the master hand of the teacher. If the hand is really a master hand, it will make very little difference whether the box which is unlocked contains tools of steel or wood or manuscripts or the less tangible instruments of logic. The master hand will know how to draw out of all of these the spirit of culture and scholarship which is the objective of our educational processes.

If our guidance program is effective, we will have something to give to the student whose I.Q. is 80 as well as to him whose I.Q. is 140; to him whose emotional releases are volcanic as well as to him whose emotions are as undisturbable as buried granite.

To bring these remarks to a focus, it would seem to me that, if we could only find some way of bringing a unified cultural objective into both our academic and our professional endeavors, our problem would have been materially advanced towards a solution. We can do so, I believe, most easily by laying progressively more stress upon the personality traits

of the teacher by initiating a propaganda which will have for its objective the discovery of outstanding individuals in our schools and the utilization of these individuals for a progressively greater influence upon our students. I should like to see efforts directed towards the development of such men.

It is, furthermore, my half-formed conclusion that professional men are more deeply appreciative of the cultural effects of academic courses and curricula than are the academically-minded professors mindful of the possible cultural effects of the professional courses and curricula. It is strange, but in many instances I have found it but too true, that somehow the academic mind regards it as its own prerogative to impart culture. They suspect the professional man of an unimaginative pragmatism. On not too few occasions they translate this attitude into opposition to certain approaches and fields of knowledge which, if they only knew it, would subserve in an amazing way the objectives which the professor of a cultural course has most deeply at heart. I have heard a professor of philosophy insist that a course in chemistry, when given to a student who intends to become a physician, is a professional course even though that same course when given to an arts student, may have a certain cultural value. To be sure, I have sometimes heard teachers of professional subjects despairingly discuss certain courses in literature or philosophy or religion, but such attitudes are rare enough. An insight into and appreciation of each of the groups into the objectives of the other, it seems to me, is definitely indicated.

III

And this brings me to my third and last point. Cannot the American Council on Education find some way of providing a forum for exchange of views on the objectives of education in these two seemingly separate fields of educational endeavor? The volume of energy and effort which is now going on in professional fields in defining educational requirements needs, I believe, in practically each professional field the influence of many viewpoints. I could illustrate this statement by

a large number of examples if I could avoid the danger of increased tediousness in my audience. We might take, for example, the newly formed curriculum in nursing. We cannot but endorse the efforts which have been made to shift the fulcrum of the curriculum from an exclusively medical to an inclusively social center of gravity. But it seems to me, after a somewhat protracted study, that, in the minds of some persons, nursing is to develop into a welfare profession rather than into a profession auxiliary to health care. There is much more to health care than simply social welfare. There are highly technical procedures which must be taken over from the medical field; in fact, I am still one of those who insists that medicine must be the dominant influence in the development of the nurse and that the social aspects of nursing cannot be more commanding in the nursing field than it is in the medical field. A broader interchange of view will at least show the framers of such curricula what other contributions are possible to the development of any one of the professions.

Similarly, the demand is growing in certain quarters for a more extensive recognition of social values in the medical curriculum. This demand has been for a time almost vulgarly clamorous. If it has temporarily died down, I am trembling with anticipation that it will again be raised, perhaps with added insistence by reason of the period of recovery from fatigue which has been granted. Now, it seems to me that, divesting ourselves of all prejudices, medicine has a social significance, but its first effort cannot be social influence or economic influence or an educative influence; its first effort must be the restoration to health of the individual in the masses. Of course, I am not unaware of the pendulum swing of history, but even in the face of that recognition we are not bound to withhold a certain amount of frictional impeding of that pendulum merely because sooner or later the common sense of mankind will bring it back to a sane attitude. There is need of balance in such thinking. I have seen requirements developed during the last two or three years in hospital administration, in laboratory technology, in radiological technology, in occupational therapy, in physical therapy technology, in die-

tetics, in social work, in medical social work, in the various branches of dentistry, in teacher training, in commerce and finance, even timidly, it must be confessed, in law. These efforts cannot but achieve the sympathetic approval of each one of us, but surely we are all anxious to contribute divergent viewpoints upon these many efforts since they all have their significance for human welfare, they all produce their cultural effects and none of these efforts, therefore, can be deemed foreign to the mind of the educator.

Let me clarify this point just a little. I am not pleading here to take the development of requirements out of the hands of each of the professions. I am not sympathetic with any move in that direction. Rather would I commit myself to the thesis that each profession must be allowed the fullest measure of self-determination in the development of its own standards or rather its own criteria of excellence. When that is said, however, there still remains the importance of recognizing the relationships of any one of the professions to other human interests. This reasoning extends not only to the field of undergraduate education but also to the field of graduate, and, let us frankly admit it, even to the field of post-doctoral development, subjects which, by reason of lack of time, it has been quite impossible to touch upon. Any one of the professions which recognizes not only its specific responsibilities, but also its broader responsibilities to national culture and welfare, cannot but profit by the experiences and the suggestions of other professions.

It is significant to my mind that the first suggestion for the creation of a forum in the field of professional education has come not from the cultural groups but from one of the professional groups, for it is the suggestion of Dr. William A. Cutter, of the American Medical Association, that such a forum is urgently needed if the broader educational aspects of professional education are to be completely safeguarded.

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Some Current Issues in Teacher Education

THE first century of teacher training in the United States is now closing. A hundred and one years ago, New York first recognized the importance of such training by an enactment providing subsidies to academies that would include courses designed to train teachers for the common schools. Ninety-seven years ago, Massachusetts opened the first schools supported at public expense, set apart for the purpose of training teachers for the common schools of that state.

It is not the purpose of this paper to attempt to review the history of teacher education of the past hundred years. Sufficient it is to recall that for the first fifty years progress was slow. So late as 1880 we are told that not more than 15 per cent of the teachers of the country were trained even according to the somewhat meager standards of that time. More encouraging is it to note that since 1880 there have been advances along many fronts, bringing us at this date to a well nigh universal acceptance of the view that the most important single factor determining the health of the school system as a whole is to be found in whatever is done in the preparation of teachers.

Within the wide circumference of this generally accepted view, however, there remain wide diversities of opinion as to what should be included in that preparation.

Indeed, despite the progress of the past few decades, it would appear that in the field of teacher education there is a larger number of unanswered questions than in any other area of education. Perhaps this is not surprising in view of the numerous problems now found in all phases of education towards each of which the education of teachers has an important bearing.

It is not necessary in this presence to attempt even a catalog of the teacher education issues that are under discussion. Everyone here has had knowledge of and contact with more than one of the numerous experiments, studies, and surveys

which have recently dealt with specific or general problems. Everyone knows that interesting and worth while explorations are now being made in every state and on every level of teacher education. My task therefore is one of selection. I shall ask the privilege of setting before you only three of the current issues that impress me as having special significance, quite mindful that some of the things omitted may be of greater importance than any of those which are here set down.

The first of these three issues that I am selecting is that which relates to the education of teachers in fields that lie outside teaching. Since the schools touch at so many points the individual and social interests of the people, teachers need to be closely and intelligently in touch with all the agencies that are reacting upon youth.

Our present programs of teacher education seem to ignore too much the necessity of breaking down the walls that isolate the schools from other forces that are constantly modifying the purposes of education as a whole. Reference is here made not to any obligations the schools may have in the discussion or teaching of political or social philosophies, to the place the schools should occupy in helping to meet the social issues of this whirling decade. Nor is the point being raised as to the ultimate extension of school courses. What seems to me to be true is that our teachers are far less informed than they should be about the work and activities of other agencies that touch the lives of youth. In a real sense these forces are highly educative even though they are non-school, or even non-public in their character. It is essential that the school be in the highest possible degree cooperative with them. Co-operation is not possible without understanding.

For example, those who are conversant with the matter point to the importance of having a more widespread understanding of conditions affecting mental health. It is being accepted quite generally that work in this field, to be most effective, must be done with youth. Not only are there known to be distressing results occurring in childhood, but much unhappiness and sickness that develop in later years might be

avoided or mitigated if the problem could be earlier faced. In spite of the exigency in this matter that is now recognized, and in spite of the known means for dealing with it, a great majority of our teachers go into classrooms with little or no understanding either of the basic elements of the problem or of the availability of the means for coping with it. A consideration of a matter of this kind should not be regarded as an intrusion into the curriculum of an institution training teachers; it should be recognized as an imperative obligation.

Or, again, there is no need to do more than to refer to certain phases of the so-called crime situation in our American civilization. No one can now be ignorant of this matter in relation to juvenile delinquency. We know that, this very day, teachers are looking into the faces of hundreds of boys and girls who appear to be doomed to acquire within the next few years court records and commitment to so-called reform or even penal institutions. We need not believe that teachers will become inordinately crime conscious if means are taken to help them acquire some understanding of the magnitude of the problem and acquaintance with the means which are being adopted to deal with it together with the general responsibility for the schools in the matter of behavior. Certain important studies about juvenile delinquency have been made in various parts of the country. Curiously enough, teachers in the very neighborhoods which have been studied are often little, if any, informed about the significance of the studies in relation to their own work. So it would appear that teachers in the course of their preparation should have their minds opened and their sympathies awakened in order that constructive assistance be given to other agencies that are trying to grapple with a matter of so great general concern. Of course the ultimate implications of studies in this field are of infinite importance in dealing with normal as well as with abnormal behavior situations.

Most teachers learn only incidentally, or through some specially aroused interest, of such significant activities as Scouting, the 4-H Clubs, the general recreational service offered in the community, the privileges offered by health and guidance cen-

ters, and by libraries and museums. Knowledge of all these and of others should be sufficiently acquired in the period of teacher education to provide a base for the more extensive interest and understanding that would follow with experience in teaching. The tendency of the schools to become isolated not only deprives them of the opportunity to be more serviceable to other agencies, it also narrows their own objectives, and decreases their effectiveness even within their own fields. The effort to include in teacher education studies in these extra school matters is often met with indifference and opposition. As a result, the schools fall far short of their possibilities as socially constructive forces.

A second of the issues to be here considered is the education of teachers for elementary schools.

While we may move faster than now appears in a general program of teacher education that will obliterate boundaries between those who are preparing for elementary teaching and those who are preparing for other teaching, it does seem that there are certain basic differences at present generally accepted that will tend to differentiate for some time the character of preparation to be provided in each instance. It is in the education of elementary teachers that traditions of teacher training as such are most firmly established, that objectives have been most definitely fixed, that by far the greatest experience has been had, and possibly that the most definitely fruitful results have been attained. Yet even here there is great perplexity and considerable uncertainty of the ways in which further progress will move.

The somewhat unexpected developments of recent years have forced rapidly to the front in the preparation of elementary teachers certain questions that might normally have been postponed for a long time.

No more than twenty years ago, a group of state officers of education came to the despondent conclusion that never, probably, could all the schools be staffed by trained teachers. Now, because of conditions not necessary here to describe, in certain states, there is an excess of trained teachers so great

that some of them can never expect to get employment in their profession. This condition has sharply accelerated a movement already falteringly begun in the direction of lengthening courses of teacher preparation. The former standard two-year requirement for graduation has been expanded in many cases to requirements of three and four years. Barring some unexpected change of trend, it seems that within a decade or two at the most, four years supplementary to secondary school education may be the least requirement for preparation for elementary teaching. It may even happen that the tentative suggestion of postgraduate professional study for this field will take practical form. The situation has also happily made possible more exacting conditions of entrance to *normal* schools and teachers colleges, thus reducing the necessity of devoting as much time as formerly to reviews of secondary school subject matter. The release of this greatly increased amount of time has given rise to many supplementary questions in the training of elementary teachers.

Will this change fundamentally alter the place of the elementary teachers in a professional sense? I think it will. Without any disparagement to the elementary teacher, it may be said that she has been expected to carry out orders formulated elsewhere. In the normal school, she has been given a general understanding of the elements of pedagogy, but her time has chiefly been spent there in observing what had been accepted as good patterns of teaching and in mastering certain techniques of method. Upon graduation she has entered upon duties in the discharge of which she has been expected to follow plans, outlines, and courses which she has had relatively little part in arranging. Her training has been so exact, her attitudes have been so correctly ordered, and her personality usually so adapted through selection or discipline that she has come to fill a place in education not unlike the place filled by the trained nurse in the practice of medicine. With longer periods of preparation, however, it is inconceivable that the teacher will not grow in importance as a factor of influence in the largest professional sense. She will have part in the

arrangement of courses, she will have more liberty in the selection and use of materials and methods, she will be less directed by supervisors, because she will herself have a better understanding of various special fields. This growing professional importance of the teacher cannot be safely overlooked by those who now have in charge the organization of plans and curricula of teachers colleges.

What then is to be done with the increased time that is to be at the command of teacher education institutions? That question has brought into a thousand faculties renewed points of controversy. Should the added year or years be used for more attention to subject matter? Should the preparation of teachers imply still more attention to methodology? Should professional study not directly related to methodology be allotted a large share of the added time?

Those who feel that elementary teachers present on the whole a background of education that is weak in scholarship, that they lack knowledge of the subjects they are expected to teach, naturally feel that teacher education at this point should be strengthened. Others, feeling that the teacher training institutions have on the whole been most effective because of the emphasis they have placed upon methods of teaching, think they should run no risk of losing this distinct advantage. Indeed they feel that it should probably be further pressed. Each school of thought has its adherents armed both with the disposition and the material to give guarantee of full consideration of the subject. It appears, however, that the strongest case can perhaps be made for those who emphasize the opportunity that will now be present for laying a broader basis of teacher education by opening fields of study hitherto considerably pre-empted by specialists. If the teachers of elementary schools are about to step outside the somewhat restricted areas of their former service and are to be expected to have part in formulating and carrying out broad policies of education, then it is essential that they should be more adequately equipped to meet these larger responsibilities.

A third issue relates to the education of teachers for sec-

ondary schools. Here is the promise of the sharpest discussion, here the certainty of warmly contested proposals and counter proposals, and here the greatest challenge to all who are interested in that part of American education which is most distinctly American. The preparation of teachers for a field so rapidly changing in its characteristics is, of course, a matter of supreme importance to that field. There are, moreover, not only the questions that are inherent in the nature itself of secondary education; there are also many questions that are of great interest to institutions new and old, the colleges of liberal arts, the public normal schools and teachers colleges, graduate schools of education, and numerous schools that teach special subjects.

The professional training of secondary school teachers is now only at its beginning. While we may not disregard, nor fail to give credit for the considerable progress of the past two decades, particularly as regards in-service training, yet it is true that the great majority of teachers now in our secondary schools have as their background the general courses of liberal arts colleges. These teachers have been chosen on the basis of their knowledge of the subjects they were to be required to teach. They have been and are expected to transfer to pupils on the secondary level as much of the scholarship they have attained on the collegiate level as can appropriately be required of high school students.

Like any other general statement, this one is subject to important exceptions, but, as a general statement reflecting the common acceptance of secondary teaching standards, I believe the statement can stand. The exceptions, however, are important because they point to the increasing acceptance of certain new theories about the preparation of secondary teachers.

The general attitude of the liberal arts colleges may be taken as upholding the theory that, while teaching techniques are important in elementary education, by the time the pupil reaches the high school he should have sufficiently mastered the art of learning, so that the teacher need no longer present

the devices that are designed to facilitate the act of teaching. While state certification requirements and the opinions of those employing teachers have gradually forced into the liberal arts colleges courses in education, so called, yet these courses have often been adopted grudgingly and the faculty members offering them have sometimes needed exceptional graces of personality to win hearty nods of friendship from those faculty members who were schooled in the tradition that learning for learning's sake offers as much promise of joy as this life holds. Teaching, while one of the noblest of vocations, still is a vocation and, so the liberal arts faculties say, great caution must be exercised lest anything like vocational education find its way to the liberal arts campus.

In spite of these light remarks, I want to go on record seriously that a most important ingredient of good teaching in any field, and especially so in the high schools, is that of scholarship, and to add that many of the so-called professional courses that have reached college campuses by the route of mechanical regulations may have done little to increase the respect of college faculties for professional education.

It is entirely possible to have more satisfying conditions as to scholarship and to meet the clearly emerging needs for something which, for want of a better term, we call professional training.

It is important to refer to the developments of the past decade or two in which state teachers colleges have expanded their courses or have gone frankly over as complete units dedicated to the specific purpose of training high school teachers. These instances, now by no means isolated, at once point to the growing demand for professional preparation for secondary school teaching and accentuate the wide variance of view point between the two prevailing schools of thought. In such a development the question at once arises: Are these teachers colleges about to throw emphasis on the technical phases of teaching to the sacrifice of scholarship? Are we about to have a new set of teachers who will be still better equipped with the means to transmit knowledge, but with no

more knowledge to transmit? I am not playing the role of judge in this case. The heads of teachers colleges will show you hour for hour that subject matter ranks with subject matter in the arts college.

The teacher training institutions, the normal schools and teachers colleges, are facing the necessity of making decisions of great importance to their future. Steps that are to be taken by them should be taken not on the basis of temporary expediency, nor should they permit themselves to drift from one status into another without some reasonably clear idea of the currents that are moving, and the direction in which they should be guided. Those institutions not less than others need to approach vigorously the study of the requirements of secondary schools and their own responsibilities in relation thereto.

It is also, as said, of very great importance to call attention to the fact that the liberal arts colleges must be ready to undertake eagerly and sympathetically a study of the requirements of a function which to so great an extent they have discharged.

There are some considerations that may be worth recording.

First: The secondary school area is rapidly expanding in numbers. Secondary education seems likely to become very soon as nearly universal as elementary education has been. This is certainly true if we are to include, as we should, continuation and vocational schools along with such newer and probably permanent educational plans as are included in the C.C.C. Moreover, there are clear enough indications that the junior high school will be influenced in its organization and method more from the high school above than from the elementary school below. It is not improbable that the junior college will tend to perpetuate the general ideals of the high schools nearly as much as to anticipate those of the college. After allowing for all possible margins, there will be many millions of America youth who are to be taught each year by those who, though presenting many specializations, will all be faced with a common situation, that of youth in its "teens."

Second: With this nearly universal secondary schooling, it

will be harder to hold secondary education to the central core or theme that for so long has determined the programs of our high schools. The pressures that have brought to the level of secondary education all types of youth and will keep in some kind of secondary school the very widest range of individual capacity and talent will force teacher interest far out of the bounds of subject matter material and into a study of live situations both individual and social.

Third: The feeling is growing among the people with overwhelming force that education is far more than a matter of knowledge, that it has a major concern with character and behavior. We have claimed that education implies a faith in the improvability of persons. Education thus concerned must deal with traits of personality, with mental processes, with physical, intellectual, moral, and spiritual growth. Moreover, we know that people at different stages of development undergo great changes not only in their environment, but in their susceptibility to the influence of that environment. We also know that these "teen" years are certainly not the least significant. Powerful forces, both personal and social, are at work at this time. Teachers whose preparation is limited to studies of certain subjects, teachers who have had no chance to learn of the physiological and psychical reactions that occur at this stage, teachers whose thought has been given little, or not at all, to the profoundly important changes of social currents, such teachers will be found ill-equipped to serve our modern schools.

Fourth: It is not a correct assumption that knowledge secured by study on the college level can be transferred in similar terms or by like treatment to the high school level. The transfer can be successfully made only when the teacher understands the conditions present in the class he teaches.

One of the needs of education is to find the way in which knowledge held by the experts can be transferred to safe and efficient application by the laity. Only the other day a physician was quoted as saying if the knowledge now revealed through research in medicine could be intelligently applied

among the people that certain ailments now taking heavy toll would almost at once be very greatly reduced in their destructive results. Granting something to the obstinacy of humans to follow the better way when they clearly see it, yet it is clear that there is often conspicuous failure to interpret for common use certain proven and known facts.

Let us go to the field of elementary education for illustrations of the point I am anxious to make. At about the time state normal schools were established there were those interested in the natural sciences who were able through these young schools to set up new methods and approaches. Guyot in geography, and Agassiz in natural science profoundly influenced education because they suggested and demonstrated the ways in which these fields, hitherto largely pre-empted by and for scholars, could be opened to the enjoyment and profit of even immature minds. Or take the field of psychology. James made perhaps the most effective contribution that has been made in that field through the simple and direct way in which he put into the minds of teachers, mostly those of elementary schools, the fundamental principles of his science. The methods of teaching from kindergarten to high school have been radically influenced because teacher training institutions were made the mediums for translating the results of research and study in higher institutions into terms intelligible for understanding and practicable for application in schools of a much lower level.

Turn now to an urgent need of high schools today. There is almost universal demand that the social sciences be taught in our high schools. Everywhere teachers, citizens, and parents are saying that our boys and girls are coming out of the high schools with no adequate understanding, perhaps with no understanding at all, of political science and political economy. Perhaps it is in a futile gesture of despair as to whether our youth can really understand such matters that adults order by law, pledges, oaths, and symbolic gestures in the hope that emotion will supply a need that intelligence fails to meet.

Secondary education is today calling for some college

Guyot, James, or Agassiz who will bring down and interpret on the high school level the fundamental principles at least of the social sciences. The same holds true of the entire secondary curriculum. What I am trying to say is that you who are anxious to have the liberal arts colleges continue to serve as centers of training for secondary school teachers must not expect to hold your ground if you send out persons with diplomas of scholarship achievement alone. There must go with those diplomas abilities to meet high school students on the level of their needs and understanding.

The paramount interest in the entire situation is that of the public in having good schools.

Every other measure of the worth of a school system, or all others taken together, are subordinate to this one, namely, the quality of the teaching force. Continued increase of efficiency of teaching is the best and probably the only guarantee of continued progress in American education. Neither institutional existence nor institutional aggrandizement has any important place in the picture. If the desired result of better teaching can be had only in normal schools and teachers colleges, then to such schools should the task be assigned. If the liberal arts colleges can produce for our schools, even the elementary schools, better teachers than we can otherwise get, then the public interest would be served by transferring to such colleges the entire function. If broader basic education is needed with professional training at the end, then that is the direction in which we must move. To such questions no one can make answer now, nor perhaps can answer be given for a long time. It is not too early, however, at least to raise these questions which are so thoroughly significant to the continued progress of our American schools.

As I conclude this paper I realize that pressing on your attention are numerous issues which are either not mentioned here at all or are only implied. The education of persons who are to serve in the schools as specialists, the selection and training of members of faculties, the teachers of teachers, the development of better in-service education, the substitution of

the means of professional measurements for the mechanical means now often used, the place of observation and practice, the prudent financing of teacher education,—all these and other problems await solution. The points that I have tried to make are these: First, that the education of teachers on all levels must pay greater heed to the numerous factors and agencies that have mutual responsibilities. Second, that in the education of teachers for the elementary schools, the opportunity is now present to widen professional horizons without any sacrifice of efficiency of method. Third, that there is a clear challenge to all institutions that are interested in the education of secondary teachers to grapple with a problem that may well prove to be the most interesting one of the next few decades, namely, a more effective service for that vast and, in some of its parts, new field of post-elementary education.

PAYSON SMITH,

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A New Conception of Intelligence

EVERYONE of us judges daily the intelligence of other people and occasionally we even estimate our own. It is a touchy matter, for we would rather have our integrity put to question than our intelligence, and yet the fact is no doubt generally acknowledged that intellectual endowment is unevenly distributed in the population, that some men are brighter than others. Let us more precisely define what we have in mind when we rate intelligence.

The current conception of intelligence is reflected in ordinary informal and conversational estimates about this trait. In an employment interview a boy is judged bright if he answers the interviewer promptly, if he has a wide range of information and a large number of skills, if he understands instructions for a new task and the implications of new ideas or new ways of doing something. If he succeeds in solving a problem, his intelligence is favorably regarded. He scores even better if he formulates a problem which has not yet been explicitly stated and if he offers a solution to some desirable end. The most generally accepted indicator of intelligence is the ability to do rapidly some type of mental work that people generally find troublesome and slow.

Some informal ways of estimating intelligence have well-known defects. An interviewer is likely to develop pet questions which he regards as crucial and decisive. He is likely to ride his hobbies and he may favor unwittingly mental types similar to his own. Even if he remains objective in his attitude, he may not know actually, for example, how often fifteen-year-old boys would succeed in solving a problem that he regards as diagnostic. A formal estimate is called an intelligence test, and its chief purpose is to eliminate idiosyncracies of individual judgment and to substitute objective and experimentally established procedures.

The wide dispersion of activities generally acknowledged to be indices of mental endowment raises the question

whether all are indicative of a single intellectual ability. This is an old psychological problem which has been the subject of much controversy. Some psychologists have held the view that all intellectual activities have in common an important factor which is the essential element of intelligence and that this factor is supplemented by numerous specialized abilities of narrower range. This is the interpretation associated with the British psychologist, Spearman. Other psychologists have been convinced that no central intellective ability exists and that intelligent adjustments are mediated by a large number of elementary abilities.

The practical situation of estimating a child's general mental endowment has been in large part unaffected by the two opposing extremes of theoretical interpretation because either accounts for the well-known fact that favorable mental abilities are positively associated. If a child is superior in one task that may be called intellectual, he is quite likely also to excel in other intellectual tasks of entirely different external appearance. Occasionally, however, a student finds himself well able to achieve in one field and not at all in another, and such exceptions are of considerable interest when they are found because they indicate that intellectual endowment is probably a composite of elements. Unless the differences are attributed solely to cultivated interests it seems plausible to infer that these exceptional cases illustrate the presence or absence of some elementary abilities that are crucial in different types of intellectual work.

The single total index of mental endowment most commonly used for children is the so-called mental age. A mental age of eight, for example, means simply the average performance of eight-year-old children. Average test performance increases with age, and all intelligence tests have the characteristic that the yearly increments in performance become small and vanish in the teens. The interpretation is that maturity has then been attained in the function sampled by the test. A person whose test intelligence is higher than the average for the adult population cannot be assigned any

mental age because there is no age for which his performance is the average. Unfortunately it is a common practice to assign arbitrary mental ages to those performances that exceed the adult average, but such mental ages have no meaning and no logical basis. For young children between the ages of five and ten or twelve, and also for the lower half of the adult population, mental age designations are meaningful. However, the usefulness of an intelligence test is entirely independent of the mental-age interpretation of test performances.

In estimating the mental endowment of a child it is desirable to use an index which remains constant as long as his position in relation to other children of his own age remains unaltered. The simplest and most easily interpreted index for this purpose is percentile rank. If a child has a percentile rank of 80, he exceeds four-fifths of the children of his own age in general test intelligence, and he is exceeded by one-fifth of them.

A less satisfactory but very commonly used index is the intelligence quotient, or I.Q. It is defined as the ratio of mental age to chronological age. For the lower ages this ratio is fairly stable, but it has two logical defects. The numerator of this fraction is indeterminate for that half of the adult population which scores above the average. Since all adults are growing older all the time, the denominator increases while the numerator either stays constant or is non-existent. Taken literally, it would follow that the intelligence quotients of adults would decrease every year beyond fifteen or sixteen. That does not agree with common sense and it would defeat the purpose of the intelligence quotient which is intended to be an index of mental endowment that is independent of age. The remedy has been merely to stop counting age at sixteen, and this crude procedure has given a roughly stable index.

While the complex known as intelligence is very useful in differentiating those who are generally bright and those who are less endowed, it is of great practical and scientific importance to isolate those elements of intelligence which are in

some fundamental sense primary. Common experience supports the view that such differentiable types exist and that mental endowment cannot be adequately described in terms of a single index. This problem has been the subject of speculation for centuries, and every writer has been at liberty to set up his own classification and to argue for its acceptance. A scientific treatment, on the other hand, demands that the elements of intelligence be demonstrated by objective experimental methods.

The nature of the problem of isolating the primary elements of intelligence will be illustrated by two examples. It is a rather common observation about people that some are good visualizers and that others are not visually minded. Here is a case of mental differentiation independent of any estimate of intelligence because it is generally assumed that a man may be of superior mental endowment with or without visualizing ability. If this problem is to be investigated experimentally, it is desirable to formulate more precisely what visualizing may involve. Is it, for example, the ability to memorize detail of a design on a flat surface or is it the ability to foresee readily how the pieces of a jig-saw puzzle will fit together before they have been picked up? Perhaps these two abilities are mediated by the same faculty so that a person who excels in one of them also excels in the other. And is this sort of visualizing the same ability as that required to imagine solid objects as they would look from different angles, and the ways in which they might fit together? And is this the same as the ability required to imagine movement of solid objects as in machine design? Reasoning ability may be similarly examined. Is reasoning a single fundamental ability that can operate, as it were, on an indefinite variety of things, or is it so highly specific that there is a separate reasoning ability for every possible thing that we may reason about? The truth is probably between these extremes, but just how specific are the abilities to reason? How many reasoning abilities are there and just what is each one

of them like? These are but two examples of the psychological problem of isolating the primary abilities.

The answers to these problems of the dimensionality of mental endowment can be attained scientifically instead of by speculation. During the last few years the multiple factor methods have been developed primarily for the solution of this psychological problem, but these methods constitute an analytical tool that is applicable generally in the biological and social sciences. A detailed exposition of these methods necessarily involves mathematical treatment that would not be of interest to the general reader, but it is possible to describe some of the logical foundations on which the factorial methods are built.

The multiple factor analysis of mental endowment starts with the assumption that if several tasks require the same primary abilities for an effective performance, then the abilities of an individual will not be differentiated by these tasks. On the other hand, if several tasks require different fundamental abilities, it should be possible to differentiate people's abilities by performances on different tasks. The fact that people use different fundamental abilities for the same objective performance is considered explicitly in the analysis.

As a first approximation it is assumed in factorial analysis that a person's objective performance in a test can be regarded as a sum of the contributions of his several abilities. Some of these abilities may be rather heavily weighted in a particular test, while others may have only slight weight or be entirely absent. For example, a performance in arithmetical work may be regarded as a sum of the contributions of several fundamental abilities. These might be number facility, ability to reason, mental speed, and so on. These abilities might enter into the arithmetical problems with different weights because some of the abilities might be more essential than others. Still other factors, such as ability to rhyme or word fluency or memory, might be entirely absent in the arithmetical task. The factorial constitution of different tasks would be expected to vary from one task to another.

Scientific work that has been in progress for the past four years has revealed seven primary mental abilities. It is too early as yet to make any definite prediction as to how many abilities will eventually exhaust the field of mental endowment, but they are not likely to be so numerous as sometimes supposed. While future investigation will refine considerably our present ideas about each of the primary abilities, it is possible already to describe the general characteristics of seven of them. The present list of seven primary factors were isolated by the application of factor analysis to the records of 240 college students who volunteered fifteen hours of work in taking fifty-six psychological tests. The students seemed to enjoy the tests which were composed of a wide variety of verbal, visual, and numerical material.

One of the most conspicuous primary abilities that appeared in these experiments was *number facility*. This primary factor is entirely restricted to numerical thinking and it is present in the highest amount in simple numerical speed tests. It is less conspicuous in those numerical tests which involve reasoning or formulation of a problem in quantitative terms. The appearance of number facility as a primary factor in intelligence is not surprising in view of the common observation that many otherwise intelligent individuals seem to have a mental blind spot in dealing with numbers. This finding is also consistent with the fact that occasionally an individual who is generally retarded mentally possesses number talent.

Another primary ability conspicuous in these experiments is *word fluency*. This ability is prominent in those tests in which the subject is asked to supply words in given context. A test of anagrams has a large component of this ability. In one of the best tests for this factor the student is asked to write as many words as he can think of that begin with a specified letter and end in another specified letter. Some people do this task readily, while others can think of only two or three words. Another similar task is to write as many words as possible that have the same general meaning as some given word. It is of considerable psychological interest that all the

tests that signify this primary ability are limited to the *recall* of words and that none of the tests high in this factor involve sustained verbal reasoning. Discovery of this factor raises the interesting possibility that some forms of aphasia involve this mental primary and that it may be responsible for the curious experimental findings about the mental restrictions of some aphasics. The appearance of word fluency as a primary ability raises the question whether popular slang has antedated the discovery of this factor in the description of some people as endowed with the "gift of gab."

The visual material in these experiments was adequate for the isolation of a primary ability of *visualizing*. As far as can be determined at present this factor includes the visualizing of solid objects as well as flat space. Again there seems to be experimental justification for describing some people as visually minded. Sir Francis Galton made some simple descriptive experiments with such a hypothesis over fifty years ago.

A distinct *memory* factor was revealed in the analysis. The memory tests were varied in content so as to involve memory for names, for words, for numbers, and tests were included in order to ascertain whether recognition memory among distractors would reveal several memory factors. The conclusion seems warranted that a person can be described as having a good memory in general without specification as to what he can remember well. However, the memory factor must be examined by experimental studies devoted to this particular field before its generality becomes a certainty. This much is now known, however, that memory is distinct from other mental abilities. Again, these experimental findings agree with the common observation that people of superior intellect sometimes reveal surprisingly poor memory and that people who are endowed with this ability are not always regarded as equally superior in other mental powers.

One of the seven primary abilities has been called *perceptual speed*. It is prominent in those tests in which the subject is asked to identify something quickly when it is mixed with

other perceptual material. In one of these tests the subject is shown a figure with some detail of design. He is also shown five others that differ but slightly and he is asked to pick out the design that is an exact duplicate of the given design. This is the ability that enables some people to scan a page of names or numbers to find a particular item quickly while others must examine each item separately. This ability is now being experimentally studied with further tests to refine its characterization.

Perhaps the most interesting of the primary abilities that have appeared in these experiments is one that has been named *induction*. It is involved in several tasks which have in common the characteristic that the subject must discover some principle or rule that governs the material. One of these tests was devised by Spearman as a test of the general intellectual factor which he has denoted "g." In this test the subject must discover for himself in what way two groups of figures are different. One of the groups may be lines convex to a straight line whereas the other group may be lines concave to adjacent straight lines. Each pair of groups offers a new principle of differentiation for the subject to discover. In another test the subject is to discover the rule in a set of numbers such as 1-2-4-7-11-16-22- — — —. In this case the successive differences are 1, 2, 3, 4, 5, etc. For each series of numbers a new rule must be discovered. Since all the tests containing the factor have this inductive character, there seems justification for naming the primary ability induction. This is an unexpected differentiation in reasoning abilities since it indicates that some people may be superior in deductive thinking without being superior in inductive thinking. This primary ability is close to the general intellectual ability which has been postulated by Spearman, and it may eventually turn out to be essentially the same factor. The single-factor hypothesis of Spearman makes the assumption that all activities that may be called intellectual involve this central factor, but such is not our finding. The ability to name opposites and synonyms is generally regarded as an index of general intel-

ligence, but these activities have no inductive component in our analysis. Further experimentation with tests for this primary factor should reveal whether originality and inventiveness are involved.

Another primary ability has been named *verbal reasoning*. It is exemplified by tests of verbal analogies and tests in which the subject is asked to match proverbs which have the same moral or quotations which have the same meaning, and to make numerical estimates which require deductive reasoning. This primary ability might be called verbal relations or deduction. It is of psychological interest that it separates from the word-fluency factor and hence the experiments have demonstrated at least two distinct verbal abilities, one of which is concerned with word fluency and the other with deductive reasoning.

The practical result of these findings is that individuals can be appraised as regards each of the primary mental abilities. Instead of describing a child or an adult by means of a single index of intelligence, the description will be in terms of at least seven indices which can be graphically represented on a diagram in a sort of profile. The ups and downs on an individual's mental profile show the primary abilities in which he is gifted and the abilities in which he is not gifted. Such a description is in line with common observation about people according to which they differ not only as to a single average mental level but also in the diversity of individual talent.

In vocational and educational guidance the mental profiles will play an important role. Children may be divided into separate groups in the schools in accordance with their mental profiles and taught to read, for example, by methods that are appropriate to their respective imagery types. An engineering student who is relatively deficient in visualizing will be warned beforehand of his difficulty with descriptive geometry. The medical student who is relatively low in memory will know beforehand that he will have to give special effort in learning anatomy. Unsuspected talent might be discovered by rating people on each primary element of intelligence.

One of the most fundamental educational problems is to determine to what extent these primary abilities are native and to what extent they can be trained. If it should be found that some abilities can be trained, school curricula might be fundamentally altered. It will be of great social interest to ascertain which abilities are determined by inheritance.

Since the primary mental abilities have so recently been isolated, there must be several years of intensive research before the appropriate tests can be made generally available in the schools and for all ages. Further experimental studies must also be made in refining our conception of the primary abilities. Intelligence may eventually be described in terms of many more primary factors than are now known, but studies in this field should be somewhat easier in the future because they may be oriented to the landmarks that have already been found by the factorial methods.

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The Care and Education of American Youth

UNDER the fine auspices of this Council, and by virtue of generous support by the General Education Board, there was created the American Youth Commission. This Commission was the result of a year's study by a special committee of the Council, and it was created in recognition of the fact that our society was facing a major crisis in the care and education of our youth. It called attention to the fact that—

... recent social and economic changes in the United States have given rise to difficulties in the care and education of young people with which existing institutions are quite unprepared to deal adequately. The changes not only have greatly intensified the problems which confront the schools, but also have created an urgent need of protection and further education for millions of youth whom the schools are not now reaching. Without some provision for basic planning to meet this situation, there is serious danger that present conditions may constitute a threat to the national welfare.

The committee which drew the plans for this Commission recognized that the problem was of such character as to require a special Commission of outstanding American citizens, and that, at least, a five-year period of study would be necessary in order to make an adequate and effective attack upon the problem. The committee realized further that the work of the Commission should be comprehensive in scope. We were, therefore, commissioned "to develop a comprehensive plan for the care and education of American Youth." We were also instructed to "endeavor to integrate contributions that have been made or are being made for the solution of this problem, and to stimulate new contributions in fields hitherto unexplored and to encourage translation of the best that is known into practice on a nation-wide scale." We were instructed to take account of the needs of all young people,

whether they are reached by existing social agencies or not, who are approximately 12 years of age and upward. The Committee indicated further that the problems to be dealt with in the care and education of youth suggest the desirability of a four-fold undertaking:

1. A comprehensive analysis of the characteristics of youth, and an evaluation of the influences to which they are subject;
2. The continuous study of commonly accepted goals in the care and education of American youth, for the purpose of determining the adequacy of these goals in relation to present social, economic, and political trends;
3. The investigation of agencies concerned with care and education, and the eventual recommendation of procedures which seem to influence young people most effectively; and
4. The systematic popularization and promotion of desirable plans of action through conferences, publications and demonstrations of promising procedures.

The Commission was organized and held its first meeting on September 16, 1935. At that meeting a director was appointed and a general discussion of the problem followed. The director was instructed to acquire whatever staff was necessary and to begin a general orientation of the problem. It was felt that in the early stages of its work the Commission should deal with two major problems. The primary task was that of definition. The present crisis represents such an interplay of social forces, and these forces have been changing so rapidly in recent years that our knowledge of them is very inadequate. The second major task is the necessity for making a rather comprehensive and critical evaluation of the contributions which the various agencies working with and for youth are making to the problem; to discover the strengths and weaknesses of these services to youth; and to discover the areas of youth needs which are not being met by any agency.

In pursuance of these objectives the staff began immediately to make a preliminary inventory of the characteristics of youth, and the attempt was made to identify and to isolate the major problems of youth into approximately eight major areas. From a hurried canvass of the sources of data that

were available, and from a review of significant researches, we have attempted an analysis and description of the needs of youth into these major areas. This preliminary analysis was mimeographed and presented to the Commission at its second meeting on January 9 and 10, 1936. This analysis has proved very useful, and the demand for it from all sections of the country has been so great that we have been able to supply only a fraction of the copies asked for.

This analysis will continue throughout the life of our Commission and we shall be refining and checking these data constantly. In this connection we had hoped to cooperate with the National Youth Administration and the United States Office of Education in making a youth census on a nation-wide scale that would give us a comprehensive picture of the characteristics of youth. Due to certain governmental problems which have seemed unavoidable and insurmountable, it has not been possible to conduct this census this year. We are, however, continuing to accumulate all the pertinent data available, and when political conditions are more favorable it may still be possible to make a census of American youth. We feel that such a census is indispensable to an adequate understanding of our youth problem, and that only the federal government has the organization and facilities to make such a census on the scale desired.

In studying the characteristics of youth we are cooperating with the National Resources Committee by supplying them a member of our staff for this spring quarter. Dr. Newton Edwards of the University of Chicago is conducting this phase of the work for us. The objectives of this study are:

1. To locate and classify the youth population of the country on a "spot map";
2. To study this distribution of the youth population in relation to other factors, such as the economic index, and other environmental influences.

This idea of dividing the problem into major areas, such as health, social and economic security, education, seems to be a fundamental approach and to offer the most fruitful

results. The major reason for this attack upon the problem is that most, if not all, of the agencies working with and for youth are now organized upon that basis; researches have been made and are being made on that basis; and experimentation has also been proceeding along these lines.

This vertical organization of the agencies working for youth is, however, the cause of many of our present difficulties. It is the basis for much of the problem of the overlapping and conflict of functions. It has resulted in a large measure of departmentalization of the functions of society, and of the services to youth. In some respects this departmentalization of functions and services has all but neutralized the efforts of various organizations and institutions of society, and in other respects there is direct conflict and interference. The teaching of religion is a good case in point. The situation is such in this area that the home, the school, and the church cannot cooperate in providing religious instruction for youth. The school is held responsible for the teaching and development of character and good citizenship, but it is often paralyzed and thwarted in its efforts by other organizations which through the exertion of political pressure make it impossible for the schools to teach character and citizenship effectively.

We are faced, therefore, with the problem of effecting a unified and a coordinated approach in ministering to the needs of youth. The health needs of youth are urgent. It is likely that from 50 to 75 per cent of the youth of America are not getting anything like adequate health services. Even in the halcyon days of 1929 more than 50 per cent of the youth of America were living in homes in which the income was less than \$1,500 per year. Forty per cent of the youth of high school age never enroll in high school. And of those who enroll, approximately 50 per cent remain until graduation. Furthermore, of those enrolled, we have evidence that our curricula are ill-suited to at least 60 per cent of them. Whose function is it to meet these needs of youth? Certainly it is a

divided responsibility. But how can we effect the most effective organization for supplying these needs of youth?

The answer which we propose to make to these questions involves several points. After having determined the major needs of youth, and in our attempt to find solutions for them, we plan first of all to raise the question of the function of our public secondary schools with regard to a possible solution of these needs. This approach is made primarily upon two major assumptions:

(a) Whatever is done in a large way to solve the problems of youth must be done largely by public funds (taxation).

(b) We already have this large system of public secondary education which the people of the country are conditioned to support, and it is our feeling, therefore, that we should determine in so far as possible what, if any, additional responsibilities our schools should assume for the new needs of youth which have arisen.

We feel that the entire philosophy and function of the secondary school in America should be thoroughly and carefully re-studied. Therefore, the next meeting of the Commission, May 4 and 5, will be devoted almost exclusively to a consideration of this aspect of the problem. In preparation for this discussion, the Commission employed the services of Dr. Harl R. Douglass, professor of Secondary Education, University of Minnesota, for the past winter quarter, and had him prepare a report in which he reviewed the problems of secondary education in the United States, and has made recommendations to the Commission for needed adjustments in this field. The Commission will also have the benefit of the Report of Dr. Thomas Briggs' Committee on the Issues of Secondary Education, as well as other pertinent materials.

The next step in our procedure is to make a careful study and evaluation of the programs and experiments in each of the major areas of our youth problem. It is our hope here that we may be able to give considerable impetus to successful programs in each of these areas by calling their successes to the attention of the public generally and by encouraging the trans-

lation of these successful procedures into practice on a wider scale.

In our efforts to evaluate the contributions of the various agencies working for youth, it is our purpose to approach this problem from a critical evaluation of how the needs of youth are being met on various levels. To carry out this objective, it is our purpose to sink sample shafts into the problem at various levels. It is our purpose, for example, to make a comprehensive study of how the needs of youth are being met in a given state. For this purpose we have chosen the state of Maryland. The General Education Board has already released the funds for this study and it is now in progress. We have in mind at least three major objectives in such a study:

(1) To make an intensive study of the characteristics of the youth of Maryland and their needs.

(2) To discover how these needs are being served by the various agencies and institutions of the state.

(3) To secure information upon which it may be possible to recommend a better program for youth in that state.

It is our purpose also to make a similar study in a middle-size city of approximately 250,000 to 300,000 population. For this study we have chosen the city of Dallas, Texas, and the General Education Board has released sufficient funds for this study. It will be initiated in the very near future.

Our plans are to make a similar study in a smaller city of approximately 20,000 to 30,000 population, and for this study we have selected Muncie, Indiana. Muncie was chosen for several reasons, but primarily because of the fine sociological survey which was made some time ago by Professor and Mrs. Lynd.

It is our purpose also to make a fourth study in this area by using a county which will include a number of small towns and villages with considerable rural territory.

In seeking to find solutions for the problems of youth, our Commission is instructed to make use of any and all techniques available. It has been understood from the beginning that the Commission would not be limited to research and

investigation, but that it might resort to demonstrations and experiments if and when in its judgment these techniques seem desirable. The Commission has not yet fully clarified its purpose with regard to demonstrations and experiments. It is conceivable that the Commission will desire to use experimental techniques in some cases in order to secure data on some problems which cannot be made available in any other way. It seems reasonably clear, however, that the Commission will not resort to technique of this sort unless it is first of all convinced that the experiments are not being carried on or cannot be carried on adequately by some other agency or institution. Furthermore, we feel that it should not go into an experimental situation unless the situation is such that the Commission could have complete control of the experiment. In regard to demonstrations, it seems questionable whether the Commission itself should attempt anything of this character. It is most likely that the Commission will confine its efforts to the encouragement and stimulation of other agencies to try out desirable techniques and procedures.

In addition to the studies which I have already indicated, there are certain additional problems that we are commissioned to investigate. Among these are:

1. An analysis of the various plans of vocational education in common use, with particular attention to part-time vocational education in cooperation with industry and an intensive survey of full and part-time vocational opportunities open to young people. Such a study should result in tentative plans for the improvement of vocational education and guidance and should probably include experimental demonstrations of such plans.

2. A survey of the Civilian Conservation Corps camps with two major objectives in mind:

- (a) To make a comprehensive study of the characteristics of youth in the Civilian Conservation Corps camps in order to determine the efficiencies and deficiencies of the society from which they came.

- (b) To make a critical evaluation of the results of the Civilian Conservation Corps camps for the purpose of deter-

mining whether or not they should have a permanent place among our social institutions.

The Civilian Conservation Corps has been in existence for nearly three years, and approximately a million and a half young men between the ages of 17 and 28 have had experience in the camps. The young men who have enrolled in the C.C.C. are representative of a large body of youth in the United States who have had only limited educational, social, and occupational opportunities, and a study of their characteristics will undoubtedly shed light on the youth problem in general. The proposed study of the camps also will undoubtedly play some part in determining the value and unique contribution of the C.C.C. camp as an agency for the care and education of youth. If it should eventuate that the C.C.C. camps have peculiar and unusual merits, then this study will assist the federal government in deciding whether or not these enterprises should be permanent. If, on the other hand, it should be decided that the camps should not be set up on a permanent basis, this evaluation of them will be available for the use of states, municipalities, and private organizations should they wish to organize camps for youth.

3. An intensive and systematic investigation of secondary and general education in rural areas; the problems occasioned by limited enrollments in secondary schools; an inquiry relating to size of secondary schools, including an appraisal of means of penetrating to the individual pupil, whatever the size of the school, and experimental evaluation of newly developed methods of improving the instructional programs of small schools through the use of such devices as correspondence instruction, the employment of circuit teachers in special fields, and supervisory organization operative over groups of schools. The work of the Commission in this area will also include a consideration of the possibilities of developing new types of schools to meet rural needs. Among these will be a consideration of the folk-schools.

4. The Commission is also instructed to make a special study of the needs of Negro youth. They constitute our largest minority population and represent an area of great need. It is among Negroes in the Southern States particularly that we approach nearest to failure in providing secondary education for all youth of secondary school age. It is estimated that there are at least 900,000 Negro youth of high school age not in school. In some states not more than 5 per cent of the Negro population of high school age are actually enrolled in

high school. In at least seven states the percentage is below 10, and in the state where it is highest it is only 48.9 per cent. Other needs among Negro youth are equally as urgent.

5. We are trying to develop a study of the influences to which youth are subjected, and a critical evaluation of these influences upon the character and citizenship of our youth. We have in mind to take into consideration at least the following purposes:

(a) To make a comprehensive analysis of the environmental influences to which American youth are subjected.

(b) To explore the whole concept of the sociological "group" or "unit" and its influences upon the youth of America. We need to know specifically what societal processes and conditions affect the "group" and what may be done to control and direct these forces. We need also to examine our whole set of educational and youth objectives in terms of the "group" or environmental influences.

(c) To make a critical and comprehensive evaluation of the influence of these "group" or environmental factors upon character and citizenship.

(d) As a part of this program, we are considering the possibility of encouraging ten or more communities of varying size and character to set up demonstrations to see what can be done to "condition" environments which will produce desired character and citizenship values. We are convinced that the development of techniques for communities to solve their own problems is probably one of the greatest contributions that our Commission can make.

(e) We also want the study to evaluate the results of several significant experiments which are now being conducted in several centers in the United States. For example, in Jersey City, New Jersey, the Jersey City Board of Education has established a coordinated child welfare unit known as the Bureau of Special Service under the direction of the Superintendent of Schools. This organization has been established to handle all cases of maladjustment found by the school authorities or police officials in the city. In this program there is a well-developed correlation of schools, police, recreational centers, and health clinics. In the time it has been in operation it has reported outstanding achievements, particularly in reducing juvenile delinquency and crime.

We have in mind also that this study should give a great deal of consideration to an analysis of the causes of crime, particularly among youth. There seems to be no more im-

portant problem before the American public today than that of the relation of youth to crime. It is a matter of genuine concern that more than half of the arrests made for the year 1935 were of youth under 29 years of age.

6. We have been considering for some time the desirability of making a rather comprehensive study of the attitudes of American youth. Our purpose in this investigation would be to study a sufficiently representative sample of American youth between the ages of 16 and 25 to discover their basic social attitudes and their implications for education, character education, and citizenship training. We want to know what this depression has done to youth. We know it has brought frustration and despair to millions, some of whom are already passing from youth into maturity. From studies which have been made, it has been found that 70 per cent of those studied stated that their educational careers have been curtailed by the depression; and 58 per cent said the depression had brought them enforced idleness. We know also that a serious aspect of this unemployment situation is that of youth's lack of desire for work. When one has been without a job for many months, even years, the ambition to secure a position gradually wanes. We want to know, therefore, how all of this is affecting the attitudes of youth. So much is being said about youth and so much attention is being concentrated upon them that there is a real danger that youth themselves will become too self-conscious and think of themselves too much as a class. They might well become a powerful pressure group with powerful political influence as they have in other countries if the right type of leadership should emerge. It should be said to the credit of our youth that so far they have shown no real disposition to pursue such a course. In the main their attitudes are quite wholesome. In some of the studies of the attitudes of youth the following facts are revealed: In a large study made of youth in Houston, Texas, for example, the interviewers in the survey rated the attitudes of their respondents on a four-point scale, and on the basis of this rating it was found that about one-half of one per cent were classified as having an antagonistic attitude toward society; 10 per cent were indifferent; 70 per cent were favorable; and 20 per cent were enthusiastic in their outlook. Comparable results were obtained from the rating of attitudes toward planning for the future. Fewer than 2 per cent were classed as despondent; 6 per cent as resigned; 58 per cent as making the best of it; and 34 per cent as optimistic. In a similar survey in Indian-

apolis, Indiana, in which interviewers were instructed to characterize briefly the person's attitude toward his present situation, it was disclosed that by dividing the answers into five classes 44 per cent were satisfied; 6 per cent were indifferent; 30 per cent restless; less than one per cent were radical; and 20 per cent were hopeful. From this brief citation of factual information, I think it is reasonable to conclude that our youth are keeping their bearings remarkably well. In fact, it is rather phenomenal that our youth are not more antagonistic and radical in their attitudes than they are. The fact in this connection, however, which we need to keep clearly in mind is that we cannot expect these favorable attitudes on the part of our youth to continue indefinitely in the face of such overwhelmingly discouraging conditions and circumstances. There is another fact that should be associated with this situation which is forcefully brought out by Maxine Davis in her recent study of American youth. She quotes youth themselves as saying, "We realize that honesty, integrity, and industry don't get you to the top any more. Our fathers had a lot of set rules for success. We know the world doesn't play by them now." There is evident here a type of cynicism which, if not checked, will result in serious social consequences. Above everything else, youth needs to believe in something fervently, something in which he can throw his whole personality without reservation in order that his personality may really grow and develop. That element is woefully lacking in our situation today. Youth has not only lost much of its confidence in our system of values, but it has also lost confidence in its leadership. Miss Davis points out very effectively again that one of the most urgent needs of youth is a hero. On this point Miss Davis says,

This generation is no different from any other in its inherent need for someone to admire, to imitate, to follow. Yet it is a generation without great heroes. There is a curious paucity of public men and women who fire the imagination of young people today.

There are several other important investigations which we are considering, but which have not developed far enough for me to make a report upon them. We naturally cannot attack all aspects of this problem at once. We shall have to develop a few major investigations at a time.

In this summary of the functions of our Commission and the outline of the program we are attempting, I have tried to give you a bit of a report of progress. It can be seen that we are approaching a stupendous task. We are attacking the problem upon several large fronts and I believe that within the next year as these studies now under way are brought to completion, we shall have some important data and information relative to various aspects of the problem.

In conclusion, may I express to the American Council on Education my appreciation of the vision of the American Council on Education in inaugurating this significant investigation, and also express my sincerest appreciation of the opportunity which I have in working with and for the Council on these problems.

HOMER P. RAINEY,
Director, The American Youth Commission

Recent Trends of Education in Europe

IT IS a great and unexpected privilege to be here this morning. I tender my most sincere thanks to Dr. Zook, your president, who has made this possible and to the members present of the American Council on Education who, although numbering in the different committees experts on every aspect of education, including comparative education, are yet willing to listen to the representative of a much smaller, although international organization. I bring you the greetings of the director of the International Bureau of Education, Professor Piaget, and of the deputy-director, Mr. Rossello. We, at the Geneva Bureau, appreciate your work as we see it in your EDUCATIONAL RECORD and in your reports. We often use the very fine work in comparative education of two of your experts—I refer to Dr. Abel and Dr. Kandel.

I have not the ambition to bring you information that you do not possess. I have thought, however, that it might be of some interest to American specialists if I tried to tell them briefly and necessarily superficially how the educational movement looks at the moment to a European who has the abundant opportunity for considering not perhaps what is really happening in the educational field all over the world, but what the responsible educational authorities in the different countries think they are doing, and how their problems strike them.

My information is taken from the reports sent in by the Ministries of Education to be examined at our International Conference of Public Instruction. This Conference is held at Geneva every summer in July, and the United States has for the last two years sent a delegation of educationists. These reports are received from nearly 50 states in North and South America, Europe, Asia, Africa, and Australia. They are afterwards printed, with the addition of statistics, in our *Annuaire international de l'Education et de l'Enseignement*, published in French. Our Deputy-director writes a general introduction taking the form of a rapid survey of the educational

movement as the Ministries see it. It is from the 1935 *Annuaire* and from what Mr. Rosello has been able to gather from the reports already received for our 1936 Conference that I have taken my information, although only about half this year's reports have come in as yet. Russia is not included in my survey because it did not send in a report last year and has not done so this year.

A piece of good news to begin with: The wave of economy in the educational field, so painful to all educationists, is receding everywhere; the educational budgets are being restored or even increased; cuts in salaries are being slowly made good. This information comes from countries as widely apart and as widely different as Mexico, Spain, Great Britain, Iran, the United States, Sweden, Ecuador, Colombia, and Finland. There are exceptions. In France and Switzerland, for instance, the cuts are recent and are causing great sorrow and anxiety. This little fact shows how closely expenditure for education follows the economic situation, for France and Switzerland—according to international statistics—are countries where, for a variety of reasons, the depression began later than elsewhere and is having its full effect now.

Education is in an unsettled state in many countries. Dissatisfied with their educational system, certain nations are introducing either partial reorganizations and reforms, or a completely new system. Poland, for example, is putting the finishing touches to a thorough reorganization of public education. At the moment the new curriculum is being introduced gradually into the last remaining grades using the old curriculum. This new curriculum is extremely progressive and experimental, and boasts of being based entirely on the psychology of the child and the adolescent. It gives great scope to student activity and student government and has drawn the parents into close association with the teachers in working for the schools. Financial difficulties are great, chiefly because of the enormous number of new schools or additional classes required, but the Polish people are whole-hearted believers in education and they are in dead earnest. The same is true of

Czechoslovakia. Polish and Czech teachers are devoted and self-sacrificing to an astonishing degree.

Ireland, Egypt, Yugoslavia, and Mexico report reforms which introduce more student activities in elementary education. Bulgaria and Hungary are inaugurating a complete reform of their educational systems.

Although quite a few countries are endeavoring to improve their elementary education, almost everywhere dissatisfaction is expressed with secondary education. Secondary education is bristling with problems. One of the most universal is the overcrowding of the secondary schools. For many reasons, the chief of which are the general rising of the standard of living which brings with it a growing desire for a more thorough education, and the unemployment of young people which causes the parents who can do so to keep their children in school after the regular school-leaving age, the secondary schools are contending with an enormous increase of students. Because many of the young men and women wish to attend the universities, or other institutions of higher learning, these in turn become crowded and terrible unemployment ensues among young professional men and women. The universities are protecting themselves by different measures. Some countries are introducing a *numerus clausus* where it did not exist. Some have taken absolutely drastic measures to restrict the number of students. These measures fall heavily upon boys, but much more heavily upon girls. In a number of countries the examinations are being made more severe; instead of being a means of ascertaining what a student knows and can do, they are a barrier to keep out as many as possible. In Geneva, I often hear parents complaining that even the quarterly examinations are being made impossibly difficult and that their children, and in particular their daughters, are being systematically discouraged from continuing studies they had undertaken with zest. This is one of the causes of the war that is being waged around examinations in many countries, and that is especially virulent in Great Britain today. You all know of the wide inquiry on examinations financed

by the Carnegie Corporation, and being carried out by specialists in many countries under the chairmanship of Dr. Paul Monroe.

These restrictive measures are no solution to the problem of secondary education. They are only temporary makeshifts. Many countries are seeking for more constructive ways of meeting it. Spain, Chili, Bulgaria, Egypt, Latvia, Hungary, Denmark, and Estonia can be added this year to the list of countries studying the introduction of reforms, a list which already contained Finland, France, Ireland, Luxemburg, New Zealand, Bulgaria, Iran, Italy, India, Venezuela, and others.

Recently the International Labor Office expressed itself as gravely concerned with that problem, because of the widespread unemployment among young "intellectuals," and asked the Committee on International Cooperation of the League of Nations whether it would be willing to carry out an inquiry on "the secondary education of young people considered from the point of view of their vocational preparation for life." I do not know whether the Committee will accept that somewhat arduous task. But this points to a possible remedy and it is one which many countries are studying, i.e., improving or creating vocational and technical schools of different types and grades, raising them to the secondary level by better equipment, longer years of study, and a broadening of the general curriculum. The governing council of our International Bureau of Education decided some time ago that a thorough technical inquiry on the curricula of secondary schools should be undertaken as soon as possible by the Bureau. Undoubtedly secondary education is one of the major problems of the hour. Many widely different solutions are envisaged.

The raising of the school-leaving age above 14 has been carried out partially in Sweden and Luxemburg and also, but only for the young unemployed, in Belgium. It is being considered in Ireland to the age of 16, and in Denmark. It is actually before the parliament in Great Britain; and France has had a bill in abeyance for two years to raise the age from 13 to 14. The International Labor Office saw the absurd

undercutting of the full-grown worker by the young person of 14 who is paid a much smaller salary and at 16 or 17 can be replaced by another child of 14, and recommended raising the school-leaving age to 15 all over the world. Rural or backward countries would have difficulty in doing this. Industrial countries should be able to do it, although it would cost a large sum of money because young people's parents would often have to receive maintenance allowances. The I.L.O. has not heard of other countries, besides those I have mentioned, that have taken measures to comply with the recommendations of the 1935 Labor Conference.

The Liaison Committee of Major International Organizations, which binds together for mutual information—and for cooperation in certain fields—about 30 organizations, such as the International Federation of Teachers' Associations, the International Federation of Secondary Teachers, the World Federation of Education Associations and the International Bureau of Education, studied the raising of the school-leaving age thoroughly last year. The Committee issued a pamphlet on the subject which was distributed to all the delegates at the Labor Conference and was widely circulated. The I.L.O. expressed gratitude for the assistance of educationists in this campaign.

Rural education looms large in the planning of countries such as Great Britain, Spain, Germany, Latvia, Ecuador, Mexico, Chile, and Colombia. England, for example, is concerned with the unequality of opportunity between town children and country children and is speeding up the reorganization of elementary schools. As soon as possible all English children eleven years of age or over are to be in senior schools, central to a whole district and thoroughly well equipped. But parents often resent having their older children carried away by bus to a distant school for the whole day. It is difficult to find solutions to problems that will satisfy everybody. Rural education is one of the subjects on the agenda of our International Conference of next July.

Countries with a large, backward rural and industrial popu-

lation are working hard to eliminate illiteracy. China, Mexico, and Manchukuo are making rapid progress in this direction. Other countries are also tackling the job, though with less energy, in the Near East.

I might mention many other tendencies in education, for example: to look after the health of the school child at all levels, even secondary; to do away with the teaching of religion in official schools (Spain, Germany, and Mexico); to get town children really acquainted with rural life (movement of the *Schullandheime* in Germany and the *School Camps* in Great Britain; "year on the land" for school children in Germany; to prepare elementary school teachers in colleges of university standing; and to follow up the preparation of elementary school teachers by in-service cultural and professional education.

In conclusion I should like to add to the reports of Ministries of Education and to glance at two very important and widespread movements, the one endeavoring to prepare young people in the school to be good citizens, the other giving ever greater importance to physical education. In some countries, these two movements run parallel and are used as means to an end, that of giving a thoroughly nationalistic education, but they have other and more interesting aspects. The new emphasis placed on a complete and balanced physical education is part of a strong reaction against intellectualism in countries where intellectualism formerly ruled. Germany, for instance, has turned away absolutely from the ideal of the excellent pupil, spectacled and pale, but intensely well informed, and of the highly specialized and efficient student, to embrace that of the active, strong and athletic young Teuton; the curriculum has been modified in consequence. All this you can follow in Dr. Kandel's *Making of Nazis*. One whole day in the week is allowed to school children for the Hitler Jugend physical program. Students cannot enter the university until they have spent a year on the land; this rule holds for both girls and boys. Moreover, children leaving the elementary school not intending to go on with their studies must comply

with the *Landjahr* of nine months, largely devoted to physical training and games.

The motive of this change of outlook may be militaristic, but there seems to be also a genuine turning away from intellectualism, logic, reason and knowledge, to intuition, the emotions, and an active and simple life. This was already present in the Youth Movement before the war. People familiar with the German language would be interested in reading a book recently published: *Sinnwandel der formalen Bildung*, by Winfrid; Armanenverlag, Leipzig, 1935.

The same tendency is to be noted in Italy. It was emphasized by the delegates of both countries at our last conference.

Poland, Czechoslovakia, Hungary, Egypt, Bulgaria, and Finland are notably emphasizing physical education. Poland and Czechoslovakia have founded magnificent institutes for training their physical instructors, both men and women. Belgium has created a Superior Council of Physical Instruction and Sport. Quite recently a medal for distinguished work in that field has been created by King Leopold III; the Ministry of Education is to draw up the conditions of its award. An interesting circular was issued by the Belgian minister in September, 1935, reducing the length of lessons to 45 minutes, and ordering that three afternoons in the week should be left without lessons.

The circular states:

One afternoon shall be left free, another devoted to physical education and the third to intellectual relaxation. There will be three physical training periods during the week instead of two.

Great Britain has founded a college at Leeds for the preparation of teachers of physical training, and the college was inaugurated by the President of the Board of Education in person. A great deal of criticism is being levelled at the present system of training, or, rather, absence of system.

Switzerland has enforced the use of a special manual for physical training officially prepared for teachers. France, still clinging to its intellectualism and to its humanistic conception

of education, aims—as it always has—at forming men rather than citizens, but is waking up to the need for better physical training and much more of it. Circulars have been issued recommending a great tightening up. But—as the press points out—without the necessary cuts in the rest of the curriculum to give time, and without the appropriation of large sums of money, the improvement is hardly possible; it is trying to make bricks without straw.

In Czechoslovakia and in Belgium there is an interesting tendency to systematize physical training from early childhood right on and to make it the basis of intellectual and moral education, linking it up with these into an education of the whole man. No longer is Czechoslovakia satisfied with its fine Sokol organization. A young physical instructor, Dr. Milos Vejchoda-Ambros, came to see us last fall; he was traveling all over Europe under the auspices of the Ministry of Education and the Ministry of Public Health and Physical Education to study and experiment.

In Belgium, at an international conference of teachers held last July, I heard Dr. Demoor speak eloquently in favor of a systematized physical education from earliest childhood to manhood. He stated that physical activity, muscular movement, was the basis of *conscience* used in the philosophical sense, and hence must be the root of all intellectual and moral education. He said:

Physical activity is at the origin of the dynamic health of man and of his intellectual and moral behavior. Hence it is above all in the gymnasium that we can form a type of man knowing himself, conscious of his duties and his rights—thanks to the scientifically determined and methodically associated movements which we train him to use.

The young Czech expressed much the same ideas, and entirely independently. I found the same tendency at the St. Andrew's Conference of the New Education Fellowship in a lecture by Professor Jacks.

As for education for citizenship, it is practically a universal slogan at the moment. The remarkable series of books pub-

lished by the University of Chicago, under the direction of Prof. Charles Merriam and entitled *Studies in the Making of Citizens*, shows this education in action in many lands. Even a general book on the whole of education written in 1935 by Mr. Happold, formerly history master in London and now headmaster of Bishop Wordsworth's school in Salisbury, is entitled *Citizens in the Making*. This is a straw that shows which way the wind is blowing.

An Association for Education in Citizenship was formed in England in 1934. Its president is Sir Henry Hadow. Mr. Fisher, a former president of the Board of Education, the Earl of Lytton, Prof. Gilbert Murray and many other of our most prominent citizens are members.

Its formal announcement reads:

OBJECT

To advance the study of and training in citizenship, by which is meant training in the moral qualities necessary for the citizens of a democracy, the encouragement of clear thinking in everyday affairs and the acquisition of that knowledge of the modern world usually given by means of courses in history, geography, economics, citizenship, and public affairs.

METHODS

1. To collect information as to what is being done in regard to training in citizenship in schools and in other educational institutions, both in the United Kingdom and elsewhere.

2. To compile bibliographies; to maintain a library of suitable books, and to arrange, where necessary, for the production of new ones.

3. To compare present methods in training in citizenship and to work out new ones; to suggest courses; to promote discussion in educational conferences, in the press, and elsewhere.

4. To make representations with regard to training in citizenship to bodies having control of education.

5. To cooperate with the Historical Association, the Geographical Association, and other kindred bodies as regards common objects.

Quite recently the Association issued a book entitled *Education for Citizenship in Secondary Schools* with a foreword by

Mr. Oliver Stanley, the present president of the Board of Education. It is a symposium by many of our foremost educationists. This is therefore a very authoritative book for Great Britain.

One of the most interesting chapters is "The Aims of Education for Citizenship," which outlines very clearly the difference between education in totalitarian states and in democracies—of course as a democrat sees them. The central point is put as follows:

The authoritarian states seem to have been successful in creating—at least for a time—a high degree of enthusiastic and self-sacrificing devotion among their followers. We cannot expect, or even desire, the same passionate enthusiasm among lovers of reason and liberty, for passion is the enemy of liberty.

Another of the most interesting chapters is "Bias and Dogma." The author believes that bias must be minimized by a dispassionate approach which young people are quite capable of appreciating and acquiring. Independence of judgment and intellectual integrity are insisted upon. Then follows a characteristically English paragraph on "indoctrination." It is extremely illuminating to read it in conjunction with Gentile's declarations as found in that most interesting book, Vol. II of *Redirecting Education*, edited by Professor Tugwell and Leon Keyserling, Columbia University Press. The excerpt from "Bias and Dogma" reads:

Is there not a body of beliefs on which our own democratic state, and our forms both of government and of civilization are based, and which not more than a very small proportion of the population would wish to question?

It will be generally admitted that there are such social qualities and that there is such a faith, and that it is these qualities and this faith that are the distinguishing characteristics of a democracy, as opposed to a dictatorship, and of a civilized community, as opposed to a state of barbarism.

We find ourselves, therefore, in an apparently inconsistent position. We ask first that teaching in connection with political and economic questions should be as unbiased as the

teacher can make it—that children and young people should be encouraged to be completely independent in judgment. We now turn round and point out that inevitably we must also demand a certain amount of “indocrination”—so much less in degree, indeed, than is required by the authoritarian state as to constitute a difference in kind—but none the less quite specific and definite.

What, then, are the main headings of the principles and values which the citizens of a democratic community should be encouraged to accept? It is beyond our scope to enter the real of political philosophy, but we would suggest that the minimum would include the following: the belief in the value of individual human personality; the belief in liberty; in freedom of speech and of criticism, and in freedom of action carried up to the point at which it begins to clash with that of others; the belief that an agreed body of law must be the means by which disputes should be settled, both between individuals and between nations; and further, that changes in the existing state of affairs must be brought about by means of criticism, persuasion, argument, and reason, rather than by violence and force; the belief that the citizen of a democracy must feel active and personal responsibility for its good government, and that he must be prepared to sacrifice time and to use his mind in the service of the various concentric communities—local, national, and world-wide—to which he belongs. These—and no doubt others—are values which are accepted by the overwhelming majority of our population.

Education for citizenship as defined in these English books can hardly be called nationalistic, especially as world citizenship is also specifically required. Nevertheless too much stress laid on forming citizens in the schools may, as we know, very easily lead to nationalism and therefore that general trend in education, especially when considered along with the emphasis on physical education, seems somewhat disquieting. We know how very strong it is in the dictator states, and therefore the best safeguard lies no doubt in democratic states giving a very definite training for democratic citizenship, thus establishing a balance which should be able to keep the world safe.

It is a question, however, whether the unadventurous and rather dull atmosphere of the democratic education for citi-

zenship, as described in the English book, is going to be able to preserve the young people of democracies from the glamor of the authoritarian methods. I was very much struck by a passage in Dr. Goodwin Watson's report on *Human Resources*, in the EDUCATIONAL RECORD of January, 1936:

More than anything else, youth needs opportunity to work for a great cause or social goal. Fully and strenuously to be occupied in cooperation with one's fellows, achieving something of great importance—this is salvation. In other ages and other countries crusades and revolutions have found their highest spiritual significance in giving youth something beyond themselves to live for and, if need be, to die for. Any student of American youth today, whether his attention be on the colleges, the farms, the factories, or the unemployed, must be struck with the absence of any dominant dedication. Middle age may tolerate a life in which every tomorrow is much like today, but the morale of youth demands that one lose his life in some great undertaking. Many older hearts would quicken in response if there were to emerge in the United States any determined cooperative effort on the part of youth to realize in their community, state, or nation the historical ideals of our culture.

When investigating the methods used for the making of citizens in the different countries of the world, one feels that something ought to be done rapidly to find the cause that could command "a dominant dedication." Perhaps one might add to Dr. Watson's suggestion for such a cause, the cooperative conquest of international justice and peace.

MARIE BUTTS,

*Executive Secretary, The International
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Confusion and Compromise in Education

I DISCOVERED the other day that the title which I took for my remarks, *Confusion and Compromise in Education*, has been badly chosen. A friend, a charming graduate of a women's college, said to me, "Well, I have always known that it is a bad thing to be confused, but I thought that it was even worse to be compromised."

For this person, at least, the implication of my title is exactly wrong. I did not intend to specify two evils of which confusion is the lesser. On the contrary, I meant to suggest two goods of which compromise is the greater.

Confusion is a good in the sense that it is infinitely to be preferred to stupidity. Something can be done about confusion. Confusion and stupidity are different things. A stupid person is rarely confused. It is the awareness of the much-to-be-said-on-both-sides-ness of almost every question that causes confusion, and this awareness the stupid person does not have. He can be dogmatic; he is not confused.

Confusion results in uncertainty in purpose, ineffectiveness in action, obscurity in expression, and muddiness in thought. It arises through diverse and conflicting objectives pulling and pushing for action at the same time. Diversity of objectives, inconsistency of purposes, and conflict of values are common attributes of reality. There is no alternative for the thoughtful person except confusion or compromise.

Compromise at its best produces a blend of interests which permit intelligent action to be taken. As a result of compromise, certain purposes are only partially realized, so that others that might have to be sacrificed altogether may be partially realized as well. Compromise is explicit; it is conscious. Compromise knows what it gets for what it gives; confusion gets little and rarely knows what it has lost.

In education, we recognize many purposes, many objectives, and many values. Even when there is no conflict among them,

wrong emphasis produces an unhappy balance. And so we may and do have confusions in education.

Can certain of these confusions be resolved by compromises? I believe they can, if we will analyze what we are trying to do in education, and, through making the necessary distinctions, secure insight as to what some of the problems are.

I shall limit myself to making one distinction out of the many that might be made, and, if I can make this distinction clear, I feel sure that my conclusions will be reasonably acceptable.

I will distinguish between two kinds of education—not between two purposes or objectives for education, but between two kinds of education so different that they should really have different names. They are so different that one cannot be evaluated in terms of the other. Both are of the greatest importance.

Yet, though each is important and though they differ, they tend to interfere each with the other's more perfect realization. And both must be administered to the same individuals at the same time by the same institutions.

These two educations may be named, one the *ethnological*, the other the *intellectual*.

Ethnological education is character building in the widest sense. It is the vehicle through which we are transformed from protoplasm to personality, through which we assimilate the mores of our time and of the various groups of which we are a part. Our customary behavior includes the language we speak, the clothes we wear, our manners and our morals, our amusements and our vices, our nationality, our religion, and our caste. For all of us, the conventional is at least the foundation of our opinions about property, the opposite sex, what to eat and when and with whom, the social revolution and even about education itself. This ethnological education is given in infancy in the home; it is given by the school, by friends, associates, enemies, heroes, and gods. It is codified in law, and in myth and scripture.

The customary behavior of us all is the real pattern of our

society; it is the basis for any collaboration. It is also for each of us the precondition for happiness and sanity.

Intellectual education is of a different order. Though it cannot exist apart from a cultural milieu of some sort and though it must use as its tools of expression and understanding the tools that convention has provided, nevertheless it is easy to see through and behind the conventional to the abstractions, to the relationships of concepts, to the generalities that are the subject matter of the intellectual. The transmission and experience in the use of this subject matter is intellectual education; the discovery of this subject matter is the objective of the creative intellect in scholarship, in science, and in art.

The distinction between ethnological and intellectual education is beautifully shown in a comparison between the elementary school subjects, spelling and arithmetic. Spelling is an ethnological subject. The letters themselves are conventional; their arrangement in a word is conventional; the application of the word to the reality signified is conventional. Arithmetic is intellectual; the symbols, to be sure, are conventional, but arithmetic is not about the symbols, it is the abstractions of quantity and the operations with quantity that arithmetic is about. There is nothing conventional about the essential subject matter of arithmetic. Things equal to the same thing are equal to each other in any culture, at any period, for any class.

Let me say again that we must not consider either the ethnological or the intellectual in terms of the other or try to evaluate them, one as higher, the other as lower. It is true that traditionally the intellectual education has been held in somewhat greater esteem, but only for small groups and only then when the prior ethnological foundations were not too seriously in dispute.

Abandoning evaluation, let us recognize simply that the ethnological and the intellectual educations tend to get in each other's way. The ethnological demands conventional conformity. It requires that the revolts against conformity be conventional. The intellectual disturbs the ethnological since

it cannot accept the sanction of social usage; social usages are for the intellectual only the data for ethnology. On the other hand, the ethnological imposes serious difficulties for the intellectual. The symbolism of language is inadequate; the subjects studied and the manner in which they may be studied are limited in various cultures and periods. So there tends to be perpetual conflict between education for ethnic competence and education for intellectual power; and since these two educations must be given to the same individual during the same years of his growth, we have a situation in which confusion may be expected, unless, on an understanding basis, compromise can be found and administered.

It is especially important to observe that ethnological education is in large part training of the mind. It is training in habits of thinking as well as in habits of acting. Good manners are as essential in thought as they are in conduct; and every society in defense of its own continuity will see to it that a minimum of ethnic competence is attained.

Concurrently, education of the intelligence must go on. It is the intelligence that gives power when tradition and custom break down, and today there are inadequacies in the mores that require from the individual something more than ethnic competence.

In observing the way society gets its twofold educational job done, we must recognize that the schools are only one means to that end, and that they are not the most influential. The schools are the institutionalization of certain aspects of the educational process, and they must and do conform to conventional conceptions as to the proper role for the schools. We find today an increased burden of ethnological training transferred from home, industry, and church to the school, and the school is struggling hard to assume these new educational functions. In some countries the state and the dominant political parties make increasing use of the schools for their ethnological purposes. Thus we must conceive the school system, including in this term all institutionalized education, not as a thing apart, but as one of the ways society has, first of imposing its customs and traditions on the immature, and

second for the development and preservation of intellectual power. The school system will take its form, content, and method as much as an adaptation to the other educational forces of society as it will from conscious direction from within.

We should expect that the elementary and secondary schools are largely devoted to the ethnological education and of course this is true. The program is devised to give competence in language, reading, spelling, and writing, in a conventionalized history and literature, in the prevailing mythology, and in the moral code. In addition, numerous useful habits, such as promptness, neatness, personal cleanliness, are developed. But some of the more subtle successes of this training are obtained without the explicit awareness of the teacher. Consider the grading system whereby, after many years, every child accepts the role of being better than some and worse than others; and the belief that this position is due, with some exceptions that go to "prove" the rule, to natural ability and to the degree of the application of effort. Consider how the consequences of this belief function today in securing acceptance of the contemporary hierarchy.

A considerable amount of intellectual education takes place in the elementary and secondary schools. In the mathematical subjects this is frequently the case. It may occur where grammar is taught, either as part of English or as part of a classical or foreign language. It probably occurs more than is suspected in the creative arts and crafts. And above all, it occurs in the long hours that are available for day dreaming, for reverie, and for contemplation.

At the college level, the compromise between the two educations—education for ethnic competence and education for intellectual power—becomes extremely interesting. The off-hand comment of most people, I am sure, would be that after the secondary school level the emphasis shifts to an increased weight on intellectual development. What actually happens is just the reverse. At no time in the education of an individual is the ethnological emphasis so great.

At the college level the institution takes over the student's

whole life. There is no phase of his thinking or conduct that is not projected against the established conventions of curriculum, regulation, custom, and tradition. The young person finds one or more groups within the college with which he is congenial, and within these groups subsidiary educational processes also go on.

It must not be thought that the ethnological contribution of the college to the student is limited to his social environment or to his extracurricular activities. The curriculum itself is organized with primary reference to ethnic considerations. The greater part of his course work is devoted to becoming acquainted with the linguistic, literary, historical, and cultural heritage of his civilization. He studies the languages he is likely to have contact with, reads the books that are considered important, acquaints himself with the historical background of his country and his times, and acquires some appreciation for the representative graphic and plastic art of his culture. His work in the social sciences gives him familiarity with the economic, political, and social usages and phenomena in which his generation is likely to emerge. In some institutions, and in some courses, the objective may also be to give the student ethical and aesthetic standards in terms of which the social pattern may be judged.

The time required for this elaborate ethnological program restricts the opportunity for intellectual training. Mathematics and the sciences become relatively less important, except for those who specialize. Creative work in literature and the arts is difficult to work into the already heavy schedule. And thus the intellectual development of the student must somehow be fostered in a course plan of essentially ethnic significance.

The colleges make more difficult the attainment of this dual purpose from their present curriculum by the rules and regulations under which the educational program is carried on. The four which militate most against a balanced compromise are rules for attendance at classes, course credits to be assembled and added for degree or other honors, marks and grades at

intermediate and final periods in courses, and the setting and marking of examinations under the control of the teachers themselves. Each of these administrative regulations tends in both obvious and subtle ways to throw the balance still further on the ethnological side, since they create a system in terms of which skillful conformity to usage will yield satisfaction to the student in terms of honor and prestige.

One of the conventions that is commonly adopted by the colleges is the presentation of their ethnological program in terms that imply intellectual training. This practice is necessary to satisfy the preconceptions of patrons and students, and probably cannot be avoided. But unfortunately it does contribute to confusion in the field of education itself, and makes somewhat more difficult the working out of an effective compromise.

We cannot fail to be impressed by the high esteem in which the ethnological education of the colleges, particularly of the New England colleges, is held by public, parents, and students. The sacrifices made to secure this education are very great, and the number requesting this opportunity continues to be large.

Students come from all parts of the country; the expense to parents is rarely as little as \$4,000 and it may be as much as \$10,000; four active years that might have been used for earning money, or to obtain business experience, or to found a family are cheerfully set aside. And it is very rare indeed to hear complaint in later years that the time or the money was badly spent, or that the period would be used in a substantially different way a second time.

In spite of the fact that the present program of the colleges has resulted in general popular commendation and recognition, it would be interesting to see an experiment in the development of a college in which the primary emphasis would be on education for intellectual power. I suspect that a new institution would have to be founded for the purpose because of the profound influence that a good ethnological tradition in an existing institution would have on the making of necessary

changes. We certainly wouldn't want to start our experiment with an institution that had a bad ethnological tradition! The money required for a new institution would not be a serious obstacle, since such a college could care for most of its current operating expense out of the tuition income at present rates—that is, if it could get the students.

I say "if it could get the students" advisedly because it is clear that many students today who are paying full tuition charges are not primarily interested in education for intellectual power. They do not choose their college because of the scholarly reputation of the faculty, or the excellence of library or laboratory equipment. We know that if their interests were primarily intellectual, they would not have to come so far, pay so much, nor take so long a time. These students and their parents know what they want out of colleges, and the students get what they come for—an education that will give them ethnic competence, that will make them college men and college women, that will give them easy command of the traditions, taboos, and ritualistic observances that will be so useful to them in later life.

And so I feel that a new college with primarily intellectual emphasis could probably be financed, but it might not get a sufficient number of paying students to keep the cost from being prohibitive. But who knows? The new prosperity may turn up an adventurous financier who, with an educator in his own way equally adventurous, will attempt the creation of a college that makes its compromise between the two educations by throwing the balance on the intellectual side.

The universities, from the point of view of the confusions and compromises that the two educations generate, make a rather unhappy showing. Certainly a university ought to be something more than a large college with some vocational schools attached to it. A university ought certainly to emphasize intellectual power and to eliminate from its program, its methods, and its setting, those things that handicap or distract it from its intellectual purposes. The university does not need to be *in loco parentis* to its students. It does not need to check

attendance, to grade and mark, to add up credits. But what of the undergraduate part of the universities, you may ask? I reply, why not put it on a university basis? Why not leave to the colleges the education of those who, whatever their chronological age, are not yet mature enough for intellectual work in the university temper?

The attempt by the universities to take over college responsibilities and to create a series of collegiate attitudes is destructive to the university's spirit and prestige. It is resented by scholarly members of the university faculty, deplored by thoughtful members of the community, misunderstood by the students, and exploited by the press. I would list the University Follies of 1936 as follows:

1. Selective admission
2. Attendance requirements
3. Course requirements
4. Marks and grades
5. Athletics and physical education
6. Research requirements for advanced degrees
7. Supervision of the social life of students
8. Collegiatism generally

I know that with certain of these Follies there would have to be compromise. But what of that? Compromise is the alternative of confusion.

BEARDSLEY RUMI,
Treasurer, R. H. Macy Company

The Committee on Problems and Plans in Education: A Summary, 1930-1936

PRESIDENT ZOOK has prepared the following admirable summary of the work of the Problems and Plans Committee during the six years of its existence. I shall not bore you by duplicating it, and I could not improve on it. I shall try to fulfill my obligation to the makers of the program by adding a little discreet underlining.

I doubt whether any committee of the Council—not even excepting the Executive Committee—has worked harder. The President's summary notes that the Problems and Plans Committee has held sixteen meetings. Since he prepared that document it has held another. There have been, then, seventeen sessions in six years occupying a total of thirty-eight days—long days at that.

The Committee has created a veritable host of subcommittees. Some of these have been made up out of its own membership; some have consisted of outsiders. Several of these subcommittees have conducted extensive investigations for which funds have been provided either by the Problems and Plans Committee itself or through special foundation grants secured by the Executive Committee of the Council.

The Problems and Plans Committee has considered many more research projects than those listed in the President's summary; scores of projects all told. The twenty-six noted in the summary are those which have either been fully formulated or are in process of formulation.

The Committee has been responsible for the final formulation of some dozen, for which the Executive Committee of the Council has sought support. Nearly all of these are either what may properly be described as large scale investigations entirely beyond the reach of the scientific personnel of educational institutions, or else fundamental investigations in the sciences which underlie education, the results of which may not

find immediate application in educational practice. The report shows that the Council has secured grants from educational foundations for eight of these studies, grants totaling close to \$700,000.

On the basis of the record thus baldly outlined the Problems and Plans Committee might be thought to be a device for getting money for educational research. That, of course, is not its primary purpose. It was set up for something quite different and I believe it has been faithful to its commission. Money for educational research was being spent in large amounts before the establishment of the Committee. Probably it will continue to be spent on a grand scale, whether or not the Committee continues to exist. It may be appropriate, therefore, to remind the Council of the reasons for the creation of the Committee, of the additional responsibilities with which the Council itself has from time to time endowed it, and of the Committee's own conception of its functions.

The Committee was established to organize cooperative research. The foundations which have been the chief source of support for large research projects can not organize them. There was no other existing agency which might. A second task of the Committee was to be the determination of the need for fundamental studies and the definition of such studies.

At its first full meeting the Committee developed a set of guiding principles which have continued to govern its operations. It has at no time conceived its task to be the presentation of a multiplicity of projects. There is no dearth of projects in the field of educational research, even of respectable projects. Respectable small projects generally get themselves financed in due time. If they do not they are probably not quite respectable enough. The Problems and Plans Committee has been concerned with the things that would not otherwise be done, with the things that would not otherwise be possible—with the single proviso that these things shall be of crucial importance to the field of education.

Obviously the conference function of the Committee has been one of its chief functions. Its members have talked end-

lessly. Every one of its meetings has been attended by a number of visitors. Each person, member or visitor, has brought experience and competence in a special field to the common deliberations. Through the meetings of the Committee its members have acquired a more intimate and comprehensive picture of the whole field of education than any one of them ever had before. As a consequence, I venture to say that the Committee's final decisions concerning the importance of research undertakings are as reliable as any that have yet been rendered.

It seems plain that the Committee has two major achievements to its credit. They are the reorganization of the *American Council on Education* itself, and the formulation of the study under the charge of the American Youth Commission. From the President's report it is of course plain that it is for these purposes that the largest grants have been made to the Council, almost \$900,000. I am not measuring the importance of the achievements in financial terms, however. The reorganization of the Council, in which the Committee had a leading part, has given this body dignity and influence beyond anything that it enjoyed before. It now truly represents American education. The study under the charge of the American Youth Commission is unquestionably in concept the most important educational inquiry undertaken in this country or any other country.

The action of the Council in amending its constitution to include a provision for the Problems and Plans Committee and a definition of its powers and duties indicates that the Council has come to believe that the Committee is an essential instrument in its operations. The members of the Problems and Plans Committee, as a result of their experience, endorse this belief.

SAMUEL P. CAPEN,
Chairman; Chancellor, University of Buffalo

Report on the Activities of the Committee on Problems and Plans in Education

THE Problems and Plans Committee of the American Council on Education was established in March, 1930, by the Executive Committee of the Council for the purpose of giving extended consideration to major plans and policies in American education. The Committee now consists of twelve members, three of whom are elected each year for terms of four years.

Dr. S. P. Capen has served continuously as its chairman. Other persons who have served or are serving as members of the Committee are as follows: Lotus D. Coffman, William J. Cooper, Robert T. Crane, Edward C. Elliott, Herbert E. Hawkes, Charles H. Judd, John H. MacCracken, Charles R. Mann, Mark A. May, Beardsley Ruml, William F. Russell, Eugene R. Smith, Payson Smith, Paul C. Stetson, John W. Studebaker, Henry Suzzallo, Edward L. Thorndike, David E. Weglein, Ben D. Wood, George F. Zook, *ex officio*.

To practically all meetings of the Committee several guests, including representatives of the educational foundations, interested in the particular subjects under discussion, have been invited and have participated freely in the proceedings. In the course of six years the Committee has had sixteen meetings, of from one to three days each.

The meetings of the Committee and the expenses of its subcommittees, including informal conferences, have been met by generous appropriations from the Julius Rosenwald Fund amounting to \$39,016.30. The Council is greatly indebted to the Foundation for the support, without which it would have been quite impossible for the Committee to carry on its work.

The major activities of the Committee, beginning with its organization in 1930, are summarized under particular headings in the following pages. Most of these activities have

been carried on in part by subcommittees. The several matters included in this report are listed roughly in their historical sequence.

ACTIVITIES OF THE PROBLEMS AND PLANS COMMITTEE

1. *Government and Educational Organization*, A. B. Meredith, Chairman. This subcommittee was originally organized in cooperation with the Social Service Research Council. At present it represents only the Problems and Plans Committee of the American Council on Education. The committee has published two books entitled *The American State and Higher Education* and *Some Features of State Educational-Administrative Organization*. The committee is expected to make a final report on its exploration April 29-30, 1936, suggesting further specific studies in the state and local organization of education. The work of the committee has been financed by an appropriation of \$5,000 from the Problems and Plans Committee.

2. *Unitary Differential Traits*, E. L. Thorndike, Chairman. This subcommittee was charged with a consideration of the problem of isolating specific mental traits. It received the sum of \$10,000 from the Carnegie Corporation to undertake its exploratory work. For approximately four years the several members of the committee carried forward various aspects of the committee's work and published a number of articles. In 1935 the committee made a final report to the Problems and Plans Committee recommending a comprehensive study in the field to be undertaken in cooperation with the Mooseheart (Illinois) Laboratory for Child Research at a cost of approximately \$160,000. No final action has been taken on the recommendation to date.

3. *Vocational Training*, E. C. Elliott, Chairman. This subcommittee was appointed in 1931. It has held several meetings. Certain pilot surveys have been undertaken, notably in Goshen, Indiana, Pendleton, Indiana, and at Purdue University. In the meantime, certain matters closely related to the interests of the subcommittee have been taken over by

the National Occupational Conference and the American Youth Commission. The committee was originally given \$5,000 of the Problems and Plans Committee funds. It has to its credit at present \$2,375.71.

4. *Materials of Instruction*, C. H. Judd, Chairman. One of the early matters considered by the Problems and Plans Committee was the need for new and better types of teaching materials, especially in the social sciences, which would be better suited for instruction purposes in the schools. The subcommittee worked in cooperation with representatives of the American Political Science Association and the Commission on Social Studies of the American Historical Association. The American Council on Education subsidized the work of the committee to the extent of \$1,500. From the Commission on Social Studies the committee also received \$6,000. Under the auspices of the committee six pamphlets were published as follows: *The Story of Writing*, *The Story of Numbers*, *The Story of Weights and Measures*, *The Story of Our Calendar*, *Telling Time Through the Centuries*, *Rules of the Road*. The committee was discontinued in January, 1935, at which time the balance to the credit of the committee was turned over to Dr. Judd for further work along the same line at the University of Chicago.

5. *Financial Advisory Service*, D. J. Cowling, Chairman. This committee was one of the earliest of the subcommittees. After considering the several aspects of the situation for some time, a project was drawn up and approved by the Problems and Plans Committee to set up a Financial Advisory Service for the higher institutions particularly. The General Education Board made a grant of \$10,000 in 1935 for this purpose and the service has been under way during the current year. It has been thoroughly successful and a grant for further extension of this service will be requested at an early time.

6. *Manual of Examinations*. Upon several occasions Dean Hawkes, chairman of the standing Committee on Personnel Methods, reported to the Problems and Plans Committee

concerning various aspects of the work of his committee. From the funds of the committee, \$1,000 was voted to hold a conference at Princeton relative to a manual of examinations. The manual of examinations planned at that meeting will shortly come from the press in book form. It should be a significant contribution to this important subject.

7. *Citizens' Conference on the Crisis in Education.* In the fall of 1932, the Problems and Plans Committee gave considerable attention to the crisis which had developed in the financial support of education. It was finally decided to call a conference in Washington representing labor, agriculture and business, as well as education itself. The conference was held in January, 1933. It was well attended and aroused a considerable amount of popular interest. The findings of the conference were widely disseminated over the country. The Problems and Plans Committee set aside \$6,000 (actual expense, \$5,279.66) for the expenses of the conference.

8. *Reorganization of the Council,* R. M. Hughes, Chairman. In April, 1933, this subcommittee recommended that the Council include definitely in its area of responsibilities the fields of elementary and secondary education; that the Problems and Plans Committee, which had been established by the Executive Committee, be incorporated as an integral part of the Council and that on this basis adequate financial support for the Council be sought from the educational foundations. The recommendations were accepted. For this purpose the General Education Board in 1933 made an appropriation of \$300,000 for the general support of the Council for a period of from five to seven years.

9. *International Aspects of Education.* Upon the invitation of Dr. James T. Shotwell, this matter was considered by the Problems and Plans Committee at some length. Later the Council set up a standing committee, I. L. Kandel, chairman, which should have this matter in charge. The committee has had one meeting. It represents both the Council and the American National Committee on Intellectual Cooperation. The committee was also partly responsible for Dean William

F. Russell's attendance at the meeting of the Directors of Higher Education held in Paris in the summer of 1935.

10. *Emotions in the Educative Process*, Daniel A. Prescott, Chairman. This subcommittee has received from the Josiah Macy Jr. Foundation grants of money totaling approximately \$16,200. It held a summer conference at Bar Harbor in 1934. The committee has also held a number of other meetings. Several statements concerning its work have been published. The chairman of the committee has just completed a thorough exploration of the field which will be published as a book at an early time. Another member of the committee also has a manuscript ready for publication. In the meantime, the subcommittee has become a standing committee of the Council for the purpose of continuing such studies growing out of this report as may seem desirable.

11. *Federal Student Aid Program*. The federal student aid program was considered by the Problems and Plans Committee in October, 1934. At that time it was recommended that a conference be held with college executives in order to secure further clarification of the federal program. The conference was held later in cooperation with the United States Office of Education. During the summer of 1934 the Council, from its regular funds, carried on certain studies which resulted in two printed statements entitled (1) *Federal Aid for College Students*, (2) *Federal Student Aid*.

12. *The American Youth Commission*, Sidney B. Hall, Chairman. Much of the work of the Problems and Plans Committee in 1933-34 was devoted to a consideration of the youth problem which was one of the many acute problems growing out of the depression. For the work of the subcommittee, \$3,000 was appropriated. It became clear at once that the problem was one of proper care, as well as of education. It was finally decided, therefore, to set up a proposal for the establishment of a commission composed of leading representatives of civic and educational life. The proposal was accepted by the General Education Board and a fund of \$500,000 was appropriated for overhead expenses and an

additional \$300,000 for supplementary studies approved by the officers of the Board. Newton D. Baker became chairman of the Commission. Other members included in the Commission are Will W. Alexander, Ralph Budd, Lotus D. Coffman, Mrs. Dorothy Canfield Fisher, Willard E. Givens, Henry I. Harriman, Robert M. Hutchins, the Reverend George Johnson, Chester H. Rowell, William F. Russell, Mrs. Edgar B. Stern, John W. Studebaker, Miriam Van Waters, Matthew Woll, and Owen D. Young.

13. *Publication Problem.* From time to time the Problems and Plans Committee has considered the publication problem of the Council. The problem runs all the way from the need for an editor for the increasing publications of the Council to the need for establishing in the United States a really good educational magazine. In this connection, there were for a time some active negotiations with *School and Society* which it was thought might be taken over for this purpose. It proved impossible, however, to make a satisfactory arrangement with the owners at the time. Therefore, while considerable thought has been given to the matter, the problem remains unsolved as yet.

14. *American Film Institute.* In October, 1934, the President of the Council discussed briefly with the Problems and Plans Committee the possibilities of motion pictures in education. Later a number of special conferences were held with representative school administrators and with representatives of the industry. There was unanimous agreement that it was a field of great possible significance. In order to carry on certain preliminary work, the Payne Fund made a grant to the Council of \$7,500, and the General Education Board a grant of \$12,500; totaling \$20,000. In the meantime, the Problems and Plans Committee has approved a five-year project to establish an American Film Institute. This project is now being considered by the General Education Board.

15. *Handbook of American Universities and Colleges.* In 1934-35, the Problems and Plans Committee considered the need for a third edition of the Handbook. The project was

recommended favorably. A grant of \$5,000 has been received from the Carnegie Corporation toward the expenses of the Handbook, which will appear in print at an early time. It contains the most comprehensive and authoritative statement concerning higher education in the United States.

16. *Dictionary of Educational Terms*, D. A. Robertson, Chairman. This subcommittee has considered at some length the matter of a dictionary of educational terms. Owing to the great variety of usage of even the commonest terms in education, such a dictionary is clearly needed. The committee has formulated a project estimated to cost \$215,663. In view of the rather large cost it is not likely that it can be undertaken in the early future.

17. *Post-Doctoral Research Fellowships*, J. D. Russell, Chairman. From time to time the Problems and Plans Committee has become acutely aware of the great need for competent men and women in the field of educational research. While there are many individuals who take the doctoral degree in education, including the training in research necessary for that degree, very few continue in research on a full-time basis. Others continue in it only on borrowed time. This situation accounts in no small part for the unsatisfactory conditions in research in education as compared to the natural sciences, the social sciences and the humanities where systems of post-doctoral fellowships have obtained. The committee has had one meeting and will shortly present a definite proposal for the support of a system of post-doctoral fellowships in education.

18. *National Resources Committee*. At the request of the National Planning Board (now the National Resources Committee), the Problems and Plans Committee considered at several meetings the fundamental significance of Human Resources in the plans of the federal government for the development of natural resources. With the help of an informal group, called especially to consider this matter, a memorandum was submitted to the National Resources Committee emphasizing this point of view. Later Professor Goodwin

Watson drew up a more extensive statement which was published in the EDUCATIONAL RECORD in January, 1936. The Council now has an advisory committee consisting of Charles H. Judd, Edward C. Elliott, and Walter D. Cocking, which has met several times with the so-called science committee of the National Resources Committee. This committee is now considering the implications, including those in education, of trends in population.

19. *Freedom of Speech and Social Responsibility.* In May, 1935, the Problems and Plans Committee devoted a considerable part of one session to a discussion of the difficulties confronting the various freedoms of speech. It was agreed that some joint effort between education, the press, the radio and other organizations interested in this matter be attempted. A meeting with representatives of the American Council on Education, the American Association of University Professors, the Social Science Research Council, and the American Association for the Advancement of Science was held in February, 1936. It is hoped that out of this venture some form of cooperative action may be secured.

20. *Evaluation of Educational Research*, Walter S. Monroe, Chairman. While much in the way of educational research has been accomplished in this country, it is impossible to secure anywhere a reliable synthesis, interpretation, and evaluation of it. The subcommittee has had several meetings. After extended consideration, the Problems and Plans Committee approved in January, 1936, the committee's proposal for a project along this line to cost \$75,000. The committee has already been promised a liberal contract for publication by the Macmillan Company if and when the project is undertaken. The proposal is now before the General Education Board.

21. *Master's Degree*, William J. Robbins, Chairman. The Problems and Plans Committee authorized the appointment of this subcommittee in 1935 to explore the situation which has developed out of the unprecedented increase in the number of graduate students, including particularly those enrolled

for the master's degree. The committee has stimulated a number of other organizations to study the master's degree problem. It has also considered certain special studies to be undertaken under the auspices of the Council but as yet the matter has not progressed very far.

22. *The Testing Situation*, R. A. Kent, Chairman. This committee was appointed in 1935 to review the situation concerning the Cooperative Test Service now conducted by the Council, to make recommendations, if it sees fit, concerning the modification of that project and to report other recommendations for the improvement of the test situation in schools and colleges. The committee has held four meetings at which it has heard testimony of about thirty leading specialists and educational executives concerning the test situation. The committee will make a report in the early future. It is believed that this report will mark an important epoch in the Council's consideration of this important field of work. The Problems and Plans Committee has made available from its funds \$3,500 to pay necessary expenses of this investigation.

23. *Radio in Education*. The Problems and Plans Committee, after some consideration, has authorized the appointment of a subcommittee to consider the place of radio in education. The committee has not yet been appointed. In the meantime, the President of the Council has held a conference of persons representing the National Advisory Council on Radio in Education and the National Committee on Education by Radio to consider the possible uses of radio in the schools. A large comprehensive assembly on educational broadcasting is also being planned in Washington next autumn.

24. *Research in School Buildings*. This project was first raised by T. C. Holy of Ohio State University. It has been considered at two meetings of the Problems and Plans Committee. In the meantime, the proposal has been approved by the National Council on Schoolhouse Construction. The President of the Council has held an informal conference for a period of two days with a group of leaders in this field. In

view of the large amount of money ordinarily spent for schoolhouse construction, it seems possible through further research to effect savings of money which reach large proportions. The project now before the Problems and Plans Committee calls for an expenditure of \$60,000. It seems likely that the proposal will be approved at the next meeting of the Problems and Plans Committee.

25. *Cooperation among Higher Institutions.* This problem was considered by the Problems and Plans Committee at the request of the Association of Governing Boards which wishes to ascertain whether it would not be possible to secure various forms of cooperation, particularly among state institutions, which would avoid some of the present unnecessary and expensive duplication. The matter is important and promises to be thoroughly worth while as soon as it can be developed.

26. *Teacher Training.* The Problems and Plans Committee has upon several occasions during the last five years discussed the problem of teacher training. At the last meeting of the Problems and Plans Committee, January, 1936, most of the time was devoted to this matter. It was felt that there were few problems deserving more extended attention. Dr. Payson Smith, recently Commissioner of Education in Massachusetts, has joined the staff of the Council temporarily for the purpose of developing a proposed study of this important field of work.

SUMMARY

Grants to the Council growing out of the work of the Problems and Plans Committee:

Unitary Traits (November, 1931; November, 1933)	\$ 10,000
Financial Advisory Service (June, 1935)	10,000
American Youth Commission (April, 1935; February, 1936)	594,910
American Film Institute (November, 1934; January, 1935; June, 1935)	20,000
Handbook of American Universities and Colleges (two editions) (June, 1931; March, 1936)	12,500
Manual of Examinations (November, 1932)	5,000
American Council on Education (April, 1934)	300,000
Emotions in the Educative Process (May, 1933; May, 1935)	16,200
Materials of Instruction (February, 1931)	6,000

The work of the Problems and Plans Committee, as has been made clear in the preceding pages, should not be evaluated in terms of the financial grants, important as they are, which have resulted from the deliberations of the Committee. The Committee has been responsible in whole or in part for a number of other matters, which cannot be estimated in dollars and cents, including conferences, publications, and the reorganization of the Council itself on a wider basis in 1933. Furthermore, the Committee has under consideration at the present time a number of matters, several of which may result in projects of considerable size and consequence. On the other hand, the Committee's work cannot, of course, be separated entirely from the activities of the officers and standing committees who share in the responsibilities of the Council.

It is clear, however, that the Problems and Plans Committee has become the Council's main deliberative agency for the consideration of major policies in American education and major plans for the development of the Council's work. It would be quite impossible to initiate and to carry forward the Council's responsibilities without such an organization. It must, somehow, be supported adequately.

GEORGE F. ZOOK,
President, The American Council on Education

Financial Statements of the American Council on Education

The Budget, 1936-37

	<i>Estimated Resources 1935-36</i>	<i>Actual Receipts May 1, '35- Apr. 30, '36</i>	<i>Estimated Resources 1936-37 (12 months) May 1, '36- Apr. 30, '37</i>	<i>Estimated Resources* 1936-37 (14 months) May 1, '36- June 30, '37</i>
Membership dues.....	\$11,500.00	\$21,587.65	\$ 19,040.00	\$ 19,040.00
Reimbursements for services.....	12,000.00	14,392.29	15,000.00	16,000.00
Special Grants.....	50,000.00	39,726.30	55,000.00	70,000.00
Bank Interest.....		11.10		
Carnegie Corporation, contrib. Handbook.....		5,000.00		
Receipts on pre-publication sale of Hand- book.....		2,551.93	3,000.00	3,000.00
Bank Balance, April 30, 1935.....	12,078.13	12,078.13		
Bank Balance, April 30, 1936, general.....			11,159.91	11,159.91
Bank Balance, April 30, 1936, Handbook.....			3,130.23	3,130.23
	<u>\$85,578.13</u>	<u>\$95,347.40</u>	<u>\$106,330.14</u>	<u>\$122,330.14</u>

EXPENDITURES

	<i>Fiscal Year 1935-36 Proposed</i>	<i>Fiscal Year 1935-36 Expended</i>	<i>Fiscal Year 1936-37 Proposed</i>	<i>Fiscal Year 1936-37 Proposed</i>
Rent.....	\$ 4,900.00*	\$ 4,666.25	\$ 5,260.00	\$ 6,136.00
Salary of President.....	18,000.00	18,000.00	18,000.00	21,000.00
Salary of President Emeritus.....	7,500.00	7,500.00	7,500.00	8,750.00
Salary of Associate Director.....	9,558.36	9,558.36	9,000.00	10,500.00
Salary of Assistants.....	22,328.00	20,293.53	32,000.00	37,000.00
Traveling expenses, administrative.....	3,500.00	3,567.70	4,500.00	5,000.00
Stationery, printing and supplies.....	1,500.00	1,585.01	1,600.00	1,800.00
Telephone and telegraph.....	1,150.00	1,186.51	1,250.00	1,400.00
Postage.....	750.00	781.56	800.00	933.00
Furniture and equipment.....	1,400.00	1,398.73	800.00	800.00
Educational Record.....	5,000.00	5,117.84	5,000.00	5,000.00
General Expense.....	2,251.15	1,797.87	1,800.00	1,900.00
Committees.....	3,500.00	976.62	3,000.00	3,000.00
Handbook, Amer. Univ. and Colleges....	3,000.00	4,421.70	2,000.00	2,000.00
Expenses, mimeographing Survey of the Organization of State Depts. of Edu- cation, by M. M. Chambers.....	500.00	75.75	425.00	425.00
Special tax, Unemployment Compensa- tion Board.....	200.00	129.83	800.00	1,000.00
Contingent.....	540.62		12,595.14	15,686.14
	<u>\$85,578.13</u>	<u>\$81,057.26</u>	<u>\$106,330.14</u>	<u>\$122,330.14</u>

* By vote of the Executive Committee on April 30, 1936, the close of the financial year was changed from April 30 to June 30, so that a budget covering 14 months was adopted for the next year.

FINANCIAL STATEMENTS

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GRANTS AVAILABLE FOR SPECIAL PROJECTS

1936-37

American Youth Commission—1935-36.....	\$ 28,874.24
New Grant, 1936-37.....	100,000.00
Pennsylvania Study.....	6,210.00
Maryland Study.....	70,000.00
Muncie Study.....	10,000.00
Dallas Study.....	19,200.00
Choosing-A-Career Fund, balance April 30, 1936.....	81.82
Committee on Government and Educational Finance, balance April 30, 1936.....	122.33
Committee on Personnel Methods, balance April 30, 1936.....	885.61
Committee on Problems and Plans in Education.....	4,340.88
Committee on Study of Occupations Requiring Knowledge of Art, balance April 30, 1936.....	455.70
Conference Fund, Office of Education.....	7,698.96
Cooperative Study of Secondary School Standards.....	85,000.00
Cooperative Test Fund.....	6,819.53
Cooperative Test, Trade Account, balance April 30, 1936.....	24,888.04
Exploratory Study of Relation of Emotions to the Educative Process, balance April 30, 1936.....	1,694.20
Exploratory Study of Unitary Differential Traits in Human Nature, balance April 30, 1936.....	529.25
Federal W. P. A. Projects, Theatre, Art, Music, and Leisure.....	11,519.82
Film Institute, Payne Fund, balance April 30, 1936.....	1,007.04
Financial Advisory Service.....	4,170.47
Foreign Language Study Fund, balance April 30, 1936.....	11,191.28
Monograph on Examinations, balance April 30, 1936.....	382.99
National Survey of School Finance, balance April 30, 1936.....	100.50
Studies and Services for Improvement of Educational Opportunities of the Indians.....	2,200.00
Total.....	<u>\$397,372.66</u>

The Treasurer's Report

AMERICAN SECURITY AND TRUST COMPANY

Washington, D. C., May 1, 1936

DR. GEORGE F. ZOOK, *President*
American Council on Education
Washington, D. C.

DEAR DR. ZOOK:

I herewith enclose statements of F. W. Lafrentz & Company, being audit for the period from May 1, 1935 to April 30, 1936, on the following accounts of the American Council on Education:

General Fund

I desire to submit these papers as my Annual Report as your Treasurer for the past year.

Very truly yours,

CORCORAN THOM, *Treasurer,*
American Council on Education

F. W. LAFRENTZ & CO.
 CERTIFIED PUBLIC ACCOUNTANTS
 Colorado Building
 Washington, D. C.

May 2, 1936

AMERICAN COUNCIL ON EDUCATION
 Washington, D. C.

DEAR SIRs:

We have examined the accounts of the American Council on Education from May 1, 1935 to April 30, 1936, inclusive, and submit herewith our report, including two exhibits, as follows:

EXHIBIT "A"—STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS—GENERAL FUND

EXHIBIT "B"—STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS—SPECIAL FUNDS

A summary of Receipts and Disbursements is as follows:

GENERAL FUND—EXHIBIT "A"

Receipts:		
Dues.....	\$ 21,587.65	
Contributions.....	44,726.30	
Sales.....	18,749.87	
Reimbursements.....	5,917.39	
Miscellaneous.....	58.70	
	<hr/>	
	\$ 91,039.91	
Less: Credit to Special Fund.....	82.33	
	<hr/>	\$90,957.58
Disbursements:		
Administrative Expenses.....	\$ 70,430.62	
Committees of Council.....	976.62	
Publication Expenses.....	5,117.84	
Projects.....	12,220.49	
	<hr/>	\$88,745.57
Excess of Receipts over Disbursements—General Fund.....		\$ 2,212.01
SPECIAL FUNDS—EXHIBIT "B"		
Receipts.....	\$121,974.25	
Disbursements.....	120,216.21	
	<hr/>	1,758.04
Excess of Receipts over Disbursements—All Funds.....		<u>\$ 3,970.05</u>

Cash receipts, as shown by the records, were deposited in bank as evidenced by bank statements and cash disbursements were supported by vouchers.

The cash on deposit with the American Security and Trust Company at April 30, 1936, was confirmed by correspondence with the depository. A summary of the balances on hand is as follows:

GENERAL FUND—EXHIBIT "A".....	\$14,290.14
SPECIAL FUNDS—EXHIBIT "B".....	24,651.69
Total.....	<u>\$38,941.83</u>

Respectfully submitted,

F. W. LAFRENTZ & Co.,
Certified Public Accountants

AMERICAN COUNCIL ON EDUCATION
Washington, D. C.

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS—GENERAL FUND
From May 1, 1935, to April 30, 1936

RECEIPTS

Dues:

Constituent Members.....	\$ 2,400.00	
Associate Members.....	230.00	
Institutional Members.....	18,957.65	
		\$ 21,587.65

Contributions:

For General Support—General Education Board..	\$39,726.30	
Carnegie Corporation of New York:		
Handbook—American Universities and Colleges.	5,000.00	
		44,726.30

Sales:

Handbook—American Universities and Colleges...	\$ 2,233.17	
Psychological Tests.....	16,516.70	
		18,749.87

Reimbursements for Administration of Grants:

American Youth Commission.....	\$ 1,141.88	
Committee on Exploratory Study of Relation of Emotions to the Educative Process.....	125.00	
Committee on Youth Problem.....	809.77	
Conference Fund—Office of Education.....	159.74	
Cooperative Test Fund.....	\$1,564.29	
Cooperative Test Fund—Trade Account	419.91	
	1,984.20	
Cooperative Study of Secondary School Standards	462.33	
Federal Cultural Projects—Works Progress Ad- ministration.....	416.70	
Film Institute—General Education Board Grant..	312.50	
Financial Advisory Service.....	161.52	
Modern Foreign Language Study.....	250.00	
Studies and Services for Improvement of Educa- tional Opportunities of the Indians.....	93.75	
		5,917.39

Miscellaneous:

Interest.....	\$ 11.10	
Sale of Old Furniture.....	47.60	
		58.70
		\$ 91,039.91

Less:

Credit to Special Fund: Exhibit "B":		
Study of Library Facilities in Education in Washington.....	82.33	
Total Receipts.....	\$ 90,957.58	

Cash on hand, May 1, 1935, American Security and Trust Com- pany.....	12,078.13	
		\$103,035.71

AMERICAN COUNCIL ON EDUCATION
Washington, D. C.

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS—GENERAL FUND
From May 1, 1935, to April 30, 1936

DISBURSEMENTS

Administrative:

Salaries:

President.....	\$18,000.00
Director Emeritus.....	7,500.00
Associate Director.....	9,558.36
Assistants.....	20,211.20

\$55,269.56

D. C. Unemployment Taxes on Salaries.....

129.83

Traveling Expenses:

President, et al.....	\$ 2,795.27
Executive Committee.....	772.43

3,567.70

Rent.....

4,666.25

Stationery, Printing, and Supplies.....

1,585.01

Postage.....

781.56

Telephone and Telegraph.....

1,186.51

General Expense (Net).....

1,797.87

Furniture and Fixtures.....

1,446.33

\$ 70,430.62

Committees of Council:

General Expense..... \$ 776.62

Transfer to Committee on Government and Educational Finance—Exhibit "B".....

200.00

976.62

Publication Expenses:

Educational Record:

Expenses of Publication.....	\$ 4,337.29
Reprints.....	1,301.80

\$ 5,639.09

Less: Subscriptions:

Record.....	\$ 427.57
Reprints.....	93.68

521.25

5,117.84

Projects:

Psychological Test Experiment:

Psychological Tests.....	\$ 4,528.30
Thurstone—General Expense.....	3,513.50

\$ 8,041.80

Handbook—American Universities and Colleges..

4,102.94

Survey of Organization of State Departments of Education.....

75.75

12,220.49

Total Disbursements.....

\$ 88,745.57

Cash on hand, April 30, 1936, American Security and Trust Company.....

14,290.14

\$103,035.71

EXHIBIT "B"

AMERICAN COUNCIL ON EDUCATION

Washington, D. C.

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS—SPECIAL FUNDS—FROM MAY 1, 1935, TO APRIL 30, 1936				
	<i>Fund</i>	<i>Balance May 1, 1935</i>	<i>Receipts</i>	<i>Disbursements April 30, 1936</i>
Committee on Personnel Methods.....		\$ 698.57		
Sale of record cards, conference reports, scales, etc.....			\$ 2,294.72	\$ 2,107.68
Royalties.....				3,985.19
Monograph on Examinations.....		4,368.18		
Committee on Problems and Plans in Education.....		155.24		
Julius Rosenwald Fund.....				
Sales of "American State and Higher Education".....			12,736.04	11,324.13
				1,567.15
Committee on the Relation of Emotions to the Educative Process.....		3,497.77		
Josiah Macy, Jr., Foundation.....			5,000.00	6,803.57
Committee on Study of Occupations Requiring Knowledge of Art.....		932.70		
Committee on Government and Educational Finance.....		874.34		477.00
Transfer from Committees of Council, American Council on Education.....				
Committee on Youth Problems.....		37.37	200.00	952.01
General Education Board.....				
Conference Fund—Office of Education.....		2,504.25	25,000.00	25,037.37
General Education Board.....				
Cooperative Study of Secondary School Standards.....			6,389.73	6,113.72
General Education Board.....				
Miscellaneous contributions from regional associations.....				
		\$25,000.00		
		4,192.00		
			29,192.00	18,955.86
				10,236.14
"Choosing-a-Career".....		51.10		
Royalties.....			30.72	
C. C. C. Fund—Study Materials—Office of Education.....		2,324.28		
General Education Board.....				
Sales of "You and Machines".....				
		\$ 500.00		
		124.02		

Refunds.....	66.32	690.34	3,014.62	.....
Exploratory Study Unitary Differential Traits in Human Nature.....	.....	.....	1,394.08	529.25
Federal Cultural Projects—Works Progress Administration.....	.....	.....	.....	.....
General Education Board.....	.....	16,646.80	13,480.18	3,166.62
Film Institute.....	.....	.....	.....	.....
General Education Board.....	.....	12,500.00	12,500.00	.....
Financial Advisory Service.....	.....	.....	.....	.....
General Education Board.....	.....	6,460.90	5,829.53	631.37
Institute of Women's Professional Relations.....	.....	.....	.....	.....
Miscellaneous Contributions.....	\$ 524.28	.....	.....	.....
Sale of Pamphlets.....	58.25	.....	.....	.....
Transfer—Committee Study of Occupations requiring Knowledge of Art.....	175.00	.....	.....	.....
National Survey of School Finance.....	.....	757.53	1,019.57	.....
Sale of "State Support for Public Education" and "Research Problems in School Finance".....	.....	.....	.....	.....
Preliminary Conferences—Film Institute—Payne Fund.....	.....	243.14	444.77	100.50
Study of Library Facilities in Education in Washington.....	.....	.....	3,150.94	1,007.04
Transfer—American Council on Education.....	.....	.....	.....	.....
Studies and Services for Improvement of Educational Opportunities of Indians.....	.....	82.33	826.70	.....
General Education Board.....	.....	.....	.....	.....
Total.....	.....	3,750.00	2,799.29	950.71
	.....	\$121,974.25	\$120,216.21	\$24,651.69

Conference on Higher Education

THE United States Commissioner of Education is holding a series of conferences of educational leaders in several of the fields in which the Office is interested. Among the conferences was one on higher education, held on May 22 and 23. The purpose or problem of the conference as stated in the agenda was:

1. To discuss and project Office of Education functions and their organization and administration; and

2. To discuss particular functions in the field of higher education from the point of view of the kind of service which should be rendered by the Office of Education.

The personnel of the conference consisted of:

Eugene Fair, president, Northeast Missouri State Teachers College, Kirksville, Mo., and president, American Association of Teachers Colleges.

The Reverend George Johnson, secretary, National Catholic Welfare Conference.

Charles C. McCracken, educational director, Presbyterian Church in the United States.

Kathryn McHale, general director, American Association of University Women.

A. R. Mann, provost, Cornell University, Ithaca, N. Y., and chairman, Executive Committee, Association of Land-Grant Colleges and Universities.

S. A. Mitchell, director, Leander McCormick Observatory, University of Virginia, Charlottesville, Va., and president, American Association of University Professors.

Boyd B. Rakestraw, director, University Extension, University of California, Berkeley, Cal.

Guy E. Snively, president, Birmingham-Southern College, Birmingham, Ala.

Alfred H. Upham, president, Miami University, Oxford, Ohio, and president, National Association of State Universities.

George F. Zook, president, American Council on Education.

The findings of the conference as presented to Commissioner Studebaker will be published with the findings of the other conferences in the series in a bulletin of the Office of Education. This bulletin will give a picture of the desirable services of the Office of Education as depicted by the representatives of education throughout the country.

The Council at Work

THE Council at Work is a brief summary of the outstanding new projects in which the Council is interested, as well as a progress report on undertakings already launched. It is hoped that this survey will give to the members of the Council and those interested in its work a more intimate view of the Council's development. Individuals desiring further information regarding subjects mentioned in this section are invited to write to the offices of the American Council on Education, 744 Jackson Place, Washington, D. C.

MEMBERSHIP

AT THE meeting of the Executive Committee of the Council in Washington on April 30, 1936, twenty-one new members were elected. Six city departments of education and two additional state departments of education were admitted to Institutional membership, in accordance with the recently amended provisions for such organizations. The membership of the Council as announced by President Zook in his annual report is: Constituent, 28; Associate, 24; Institutional, 323; total, 375. This represented an increase of 39 per cent in total membership during the past year. The newly elected members are:

Constituent

Phi Delta Kappa, Chicago, Ill.

Associate

National Council of Parent Education, Inc., New York City

National League of Nursing Education, New York City

Institutional

Bennett College for Women, Greensboro, N. C.

Carroll College, Waukesha, Wis.

Fairmont State Teachers College, Fairmont, W. Va.

Florida Agricultural and Mechanical College, Tallahassee, Fla.

Huntingdon College, Montgomery, Ala.
Rhode Island State College, Kingston, R. I.
Saint Mary College, Leavenworth, Kan.
State Teachers College, West Chester, Pa.
State University of Montana,* Missoula, Mont.
Utah Department of Education, Salt Lake City, Utah
Virginia State Board of Education, Richmond, Va.
Akron Board of Education, Akron, Ohio
Baltimore Board of Education, Baltimore, Md.
Indianapolis Board of Education, Indianapolis, Ind.
Rochester Board of Education, Rochester, N. Y.
St. Louis Board of Education, St. Louis, Mo.
St. Paul Department of Education, St. Paul, Minn.
The John F. Slater Fund, Washington, D. C.

AMERICAN YOUTH COMMISSION MEETING

The American Youth Commission held its third meeting in Washington on May 4 and 5, 1936. Mr. Newton D. Baker, chairman, presided the first day and Mr. Owen D. Young, vice-chairman, presided the second.

Dr. Homer P. Rainey, director, reported to the Commission that the four field studies authorized by the Commission in January were making satisfactory progress. These are the survey of youth welfare in Maryland; similar studies in the cities of Muncie, Ind., and Dallas, Tex.; and the completion of the "Inventory of Oncoming Youth" in Pennsylvania. Dr. Rainey also pointed out that a staff associate was cooperating with the National Resources Committee in a study of population problems. In addition, assistance is being given to a study of 140 agricultural villages under the direction of a Columbia University faculty member. Objectives of the proposed study of the Civilian Conservation Corps were outlined, and a carefully formulated project in vocational education and guidance was described.

The Commission authorized the Director to prepare outlines of five major investigations in the following areas:

* Institutions which have held membership in the Council at some time in the past.

1. A comprehensive study of the attitudes of youth
2. A study of the influences to which youth are subjected
3. A study of the needs of rural youth
4. A study of the needs of Negro youth
5. A study of youth in the home

Dr. Harl R. Douglass of the University of Minnesota, secondary education associate of the Commission, presented his report, the *Monograph on Secondary Education*. The Monograph was favorably received by the Commission and its distribution was authorized.

Unemployment among youth was a major consideration of the Commission's discussion. In a formal statement, the Commission announced:

In considering all the needs of youth the American Youth Commission was unanimous in its conviction that the problem of finding employment for youth after they have completed their school experience is the most fundamental need of youth. The Commission recognized that this problem is the first responsibility which it must assume.

Definite plans were formulated by the Commission to make an attack upon this problem. The Commission appointed a special committee, composed of Mr. Owen D. Young, chairman of the Board of the General Electric Company, Mr. Ralph Budd, president of the Burlington Railroad, Mr. Henry I. Harriman, former president of the United States Chamber of Commerce, Mr. Matthew Woll, vice-president of the American Federation of Labor, and Dr. Rainey, to confer with representatives from industry and labor, the federal government, the United States Chamber of Commerce, social and welfare agencies, and education, in an effort to find ways and means of spanning the gap which now exists between the completion of education on the one hand and the satisfactory adjustment of young people in places of employment on the other. The committee was instructed to call a conference at an early date with representatives from these and other interested organizations for the purpose of making a thorough canvass of the situation and for the further purpose of finding ways of effecting a closer coordination in the future between formal education and work experience.

FINANCIAL ADVISORY SERVICE

The accounting conference in New York City on April 24 and 25, sponsored by the Financial Advisory Service of the American Council on Education, was attended by representatives of fifty institutions in twelve states, by accountants from eight accounting firms, and by representatives from the United States Office of Education and several state departments of education. This conference was organized for informal round table discussions of the accounting and reporting problems which are of especial interest to colleges and universities at the present time. Mr. Lloyd Morey, chief consultant of the Service, led the discussion of the accounting and reporting principles underlying the suggestions of the National Committee on Standard Reports. It is the plan of the Financial Advisory Service to call similar conferences in other regions as soon as possible.

During the last few months the Financial Advisory Service has continued to advise administrative officers of colleges and universities, and to survey the accounting systems and business office procedures of the various colleges. The accounting forms, charts of accounts, and financial reports in such institutions are examined in detail and suggestions are offered for their improvement and modification to make them more serviceable to members of the governing boards, presidents, and financial officers.

The Tennessee State Department of Education has approved the report of the Service for the organization of the accounting procedures in the six publicly controlled institutions of higher education in that state. Four states, Texas, Oklahoma, New York, and Tennessee, are now using report forms for the collection of financial statistics which follow the recommendations of the National Committee on Standard Reports.

COOPERATIVE STUDY OF SECONDARY SCHOOL STANDARDS

Since the last number of the RECORD was issued, a grant of \$116,000 has been made by the General Education Board to complete, during the next two years, the revision of criteria

for accreditation and stimulation of secondary schools which the Cooperative Study of Secondary School Standards has undertaken. This grant will be supplemented by contributions from the six cooperating regional accrediting associations, the New England, Middle States, North Central, Southern, Northwest, and Western associations.

The purposes of the Cooperative Study, its progress to date, and tentative plans for the future, were presented fully in an article in the April RECORD. The first week in May eight members of the Executive Committee and four advisory members, representing all of the regional associations, held a three-day meeting in Washington to formulate plans for the continuation of the Study. The tentative criteria in the seven major fields, philosophy, objectives, pupil, educational program, staff, plant, and administration, were approved and arrangements were made for printing them in a preliminary experimental edition for use in the tryout schools next year. These criteria have been worked over for more than two years and submitted to the critical judgment of several hundred collaborators in all parts of the country.

Next year will be devoted principally to the tryout of these criteria in two hundred carefully selected secondary schools in all parts of the country, representing schools of various types, sizes, forms of organization, and methods of control. Over four-fifths of these schools have already been selected, on the basis of nominations from state and regional representatives, and have agreed to cooperate in the program. The two hundred schools will be divided into four districts, each district comprising fifty schools. During the coming year four committees of three men each will be in the field visiting and studying intensively these schools for several days. In addition ten men will work in the field giving a series of standard tests to pupils in the group of experimental schools.

The Executive Committee arranged for additional office space at 744 Jackson Place to provide for the increased activities of the Study next year. It provided for the continuation of the services of Dr. Walter C. Eells, of Stanford University,

as coordinator of the Study in charge of the Washington office, and of Dr. M. L. Altstetter as educational specialist, and for the addition of a full-time statistician to the office staff in September.

“AMERICAN UNIVERSITIES AND COLLEGES”

The 1936 edition of *American Universities and Colleges* is now being distributed. The new book, edited by Dr. C. S. Marsh, associate director of the Council, includes 1,150 pages with descriptions of 679 institutions of higher education. Each exhibit reports the history of the college or university, its financial data, grounds and buildings, requirements for admission and degrees, departments and staff, enrollment, degrees granted, fees, scholarships, extension work, publications, and administrative officers. The introductory section includes data regarding the development of higher education in this country, the various fields of professional education, and a tabulation of the doctorates awarded in the United States during the past ten years.

Complimentary copies of the handbook have been distributed to the presidents of Institutional members and to delegates of Constituent and Associate members. In cooperation with the Department of State, copies have been forwarded to the embassies and legations of the United States in foreign countries and to foreign embassies in this country.

Copies of the third edition of *American Universities and Colleges* are for sale by the Council at \$4.00 per copy.

“STATE EDUCATIONAL-ADMINISTRATIVE ORGANIZATION”

On May 1 the American Council on Education issued a limited edition of Dr. M. M. Chambers' new book, *Some Features of State Educational-Administrative Organization*. The volume was prepared for the Council's Committee on Government and Educational Organization, under the chairmanship of Dr. A. B. Meredith, and is a companion volume to Dr. Brody's *The American State and Higher Education*, which the Council published last year.

Some Features of State Educational-Administrative Organization is a concise picture of the existing structure of the various state agencies for educational administration and includes 48 charts outlining the various relationships. It should be a valuable aid to students of public education.

Copies of the new book, bound in paper, can be obtained from the Council at \$1.00 per copy by members and at \$2.00 per copy by non-members.

LIST OF ACCREDITED INSTITUTIONS

The Executive Committee of the Council, at its meeting on April 30, voted to discontinue the publication of the lists of colleges and universities accredited by the various national and regional accrediting agencies. This list, which was made up of the institutions accredited by the Association of American Universities, the Middle States Association, the North Central Association, the Northwest Association, the Southern Association, the New England Association, and the American Association of Teachers Colleges, serves as the basis of membership for the Council. However, since the Council does not function as an accrediting body, the Committee decided to discontinue the list.

CONFERENCES AND MEETINGS

The Council has been represented at the following meetings since April 1:

American Association for Adult Education, New York City
Association of Collegiate Schools of Business, Boston, Mass.
Educational Policies Commission of the N. E. A., Chicago, Ill.
Institute for Education by Radio, Columbus, Ohio
National Advisory Council on Radio in Education, New York City
National Industrial Conference Board, New York City
North Central Association of Colleges and Secondary Schools, Chicago, Ill.

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The University Tradition in America— Yesterday and Tomorrow*

SUCH a gathering as this could come together only to commemorate an act of faith. This assembly honors a vision three centuries old and in so doing reaffirms an intent of perpetuating an ideal. A hundred years ago President Quincy, writing of the founding of Harvard, used these words: "On recurring to the origin of this seminary, our first feelings impel us to wonder and admire." From such admiration grew the celebration of the two hundredth anniversary; with no less reverential feeling the sons of Harvard have once again met here to mark the turn of another century.

The passage of a hundred years has enabled us to see more clearly the events which occurred between 1636 and the granting of the charter to the president and fellows in 1650. Thanks to the labors of the historians we are able to appreciate more fully than did Quincy the spirit of the founders and to understand more completely the significance of their bold plan. And with the increase in our knowledge comes a more than proportional increase in our admiration.

As you have heard, the Puritans' ambition was none other than to transplant to an untamed forest the ancient university tradition. They would be satisfied with nothing short of duplicating here in New England at least one college of Cambridge University. Carried forward by the strong tide of Puritanism, the enterprise was at first blessed with almost miraculous success. The goal might well seem to be in sight when, within twenty years of the founding, Oxford and Cambridge (then in the hands of dissenters, to be sure) recognized the Harvard degree as equivalent to their own. But many changes in both the mother country and the Bay Colony were yet to come. The enthusiasm for education in a new land waned, and even the second president of Harvard complained of those who desired "to pull down schools of learning, or which is all one to take away the oyl from the lamps, denying or withholding mainte-

* An oration delivered in the Harvard Tercentenary Theater in Harvard College Yard, September 18, 1936.

nance from them." The acorn had been planted, the young tree was alive, but its growth was slow beyond the expectation of those who had brought the seed to a wild, new continent.

In the middle of the last century, in 1867 to be exact, the head of one of the Oxford colleges, an eminent scholar and educational reformer, saw no evidence that the university tradition had ever taken root in the United States. "America has no universities as we understand the term," he wrote, "the institutions so called being merely places for granting titular degrees." Taken literally this harsh judgment is undoubtedly false, and yet I venture to think that it is not a gross exaggeration of the situation which then existed. The new spirit moving within the educational institutions of this country had not become evident to those outside the academic walls. Another decade was to pass before a university was opened in Baltimore, national in its scope, and proclaiming boldly that "all departments of learning should be promoted" . . . "and that the glory of the university should rest upon the character of the teachers and scholars . . . and not upon their number nor upon the buildings constructed for their use."

We commemorate today the daring hope of a group of determined men—a hope the fulfillment of which was long delayed; delayed, indeed, until within the lifetime of many now present here this morning. With feelings of gratitude we turn back through three centuries to pay homage to the faith that could see no obstacles and to ideals which are indeed eternal. But the real past which we salute is but yesterday. Harvard, together with all the other universities in this country, stands just beyond the threshold of a new undertaking. It is towards the future of our common enterprise that on this occasion we must direct our gaze.

The future of the university tradition in America—that is the problem that must concern all of us who are assembled here today. But what is this tradition; indeed, what is a university? Like any living thing, an academic institution is comprehensible only in terms of its history. For well on a thousand years there have been universities in the Western World. Dur-

ing the Middle Ages the air they breathed was permeated with the doctrines of a universal church; since the Reformation in Protestant countries these have undergone a slow and varied metamorphosis. But the essence of the university tradition has remained constant. From the first foundations to the present, four main streams have watered the soil on which the universities have flourished.

These ultimate sources of strength are: First, the cultivation of learning for its own sake; secondly, the general educational stream of the liberal arts; thirdly, the educational stream that makes possible the professions; and, lastly, the never-failing river of student life carrying all the power that comes from the gregarious impulses of human beings. All four streams are easily discernible bringing life to the English universities in the first half of the seventeenth century. For this reason Oxford and Cambridge flourished; and because they flourished, their sons who migrated to this strange land desired to cultivate the same sturdy tradition even in a wilderness.

The plans of President Dunster and his collaborators reveal clearly what the university tradition meant to the Anglo-Saxon world of the seventeenth century. Harvard's founders insisted on the "collegiate way of living," thus recognizing the importance of student life. They knew the educational values which arise from the daily intercourse between individual students and between student and tutor. Their concept of professional training was, to be sure, largely cast in terms of the ministry, but they envisaged also training in the law and medicine. The liberal arts educational tradition they transplanted in toto from the colleges which they had left behind. And finally, their zeal for the cultivation of learning is made evident by the reference in the charter of 1650 to "the advancement of all good literature, arts and sciences. . . ."

Such, it seems to me, was the properly balanced plan of a university in a time when universities were flourishing; such, it seems to me, must be the idea of a university if institutions of higher learning are to fulfill their proper function in the times

that are to come. But there have been periods of sickness, even of decay, in the history of almost every academic foundation. If one of the four vital streams I have mentioned either fails or swells to a torrent, thus destroying the proper balance of nourishment, then the true university tradition may perish. The cultivation of learning alone produces not a university but a research institute; the sole concern with the student life produces an academic country club or merely a football team maneuvering under a collegiate banner. On such abnormalities we need not dwell, but I should like to take a few moments to consider the disastrous effects of an over-emphasis of either the liberal arts educational tradition or the element of professional training. This is a real danger at all times. For a university nourished exclusively from either one of these two educational streams always seems to the uninformed to be most healthy because they believe it to be most useful.

Let us consider, first, the situation created when the proper balance is upset by disproportionate concern with general education. In this case the stream of learning and research inevitably dries up; indeed, some have contended that it should. Newman defined his idea of a university as "a place of teaching universal knowledge, for the diffusion and extension of knowledge rather than the advancement." In his famous essay he recommended "a division of intellectual labor between learned academies and universities." (In twentieth century terminology we should substitute the words "research institute" for "academy.") He believed that "to discover and to teach are two distinct functions." Newman's proposal amounted to eliminating one of the four vital ingredients evident in the life of the universities during their healthy periods. Unconsciously he was reflecting the condition of the English universities as he knew them before 1850 when they were still suffering from the long sleep of the eighteenth century. His proposition was in reality but a concise description of a disease.

A few years later a prominent member of his own university, recognizing the condition as pathological, expressed himself in the following words:

The colleges (of Oxford and Cambridge) were in their origin endowments for the prolonged study of special and professional faculties by men of riper age. . . . This was the theory of the university in the Middle Ages and the design of the collegiate foundation in their origin. Time and circumstances have brought about a total change. The colleges no longer promote the researches of science, or direct professional study. . . . Elementary teaching of youths under twenty-two is now the only function performed by the university, and almost the only object of college endowments. Colleges were homes for the life-study of the highest and most abstruse parts of knowledge. They have become boarding schools in which the elements of the learned languages are taught to youths.

When we read this indictment penned before the completion of the nineteenth century reform of Oxford we may well ask: If the intellectual division of labor which Newman advocated and which still finds proponents in our own time is to be desired, why were the English universities in so unsatisfactory a condition? The accidents of time had destroyed the ancient function of advancing knowledge and yet the institutions did not flourish.

As further evidence, listen to what the royal commission of inquiry into the condition of Oxford had to say on this subject in 1850.

It is generally acknowledged that both Oxford and the country at large suffer greatly from the absence of a body of learned men devoting their lives to the cultivation of science and the direction of academical education. . . . The presence of men eminent in various departments of knowledge would impart a dignity and stability to the whole institution, far more effectual against attacks from without than the utmost amount of privilege and protection.

Attacks from without—the phrase has a modern ring. Events proved that the commission of 1850 was correct in its statement, the changes which they advocated restored the confidence of the nation in its two ancient institutions. They could not foresee, however, the reluctance of certain sections of public opinion to welcome the restoration of the true university tradition. They did not realize how willingly the public often

follows those who argue for a separation of teaching and research! No better illustration could be found than an article in the London *Times* published in 1867. The writer endorses the general view that "the university is mainly a place of education for young men just before they enter upon life and should confine its whole administration to this practical aim." (Please note the word "practical"!) "We are confident," the article continues, "that this view is the one from which Englishmen in general regard the universities. It is a growing subject of discontent among the public that the tutors and professors of both Oxford and Cambridge are becoming more and more absorbed in their own scientific pursuits."

And these remarks at the time when the two ancient universities were undergoing that revolution which restored them to health and enabled them to take the position of intellectual leadership which they now enjoy! So short-sighted is often the popular reaction to matters of education. Would the English public today wish to turn back to the years when the professors and tutors rarely yielded, indeed, to the temptation to cultivate sound learning and pursue new knowledge?

There is comparatively little danger, however, that in the years ahead there will be any effective movement to turn the universities of this country into boarding schools. The cause for apprehension seems to me to lie in a different quarter. Even the most idealistic of those who lead public opinion too often insist on examining educational institutions through the dull glasses of immediate utility. To be sure the promotion of learning usually appears to be worth saving even when viewed through such an unfavorable medium. The most relentless reformers are at least partially convinced that at some time almost all research may be materially rewarding.

There is, however, a growing demand for more and more professional training, and there is a tendency to stretch the word "profession" until it comprises every vocation. The utilitarian demand for specialized vocational training and the practical man's contempt for useless knowledge go hand in hand. When such influences gain control, an institution of higher learning supplies training, not education, and the pro-

motion of learning is degraded to a vehicle for providing material well-being. The liberal arts conception of a general education disappears and with it the institution's most important contribution to the land. The universities of a country are the sanctuaries of the inner life of the nation. When they cease to be concerned with things of the spirit, they cease to fulfill their most important function.

If I am correct, then, in my interpretation of academic history, the future of the university tradition in America depends on keeping a proper balance between the four essential ingredients—the advancement of learning, the liberal arts college, professional training, and a healthy student life. None must be neglected; no one must be allowed to predominate unduly. If this balance can be maintained, the universities of this country, privately endowed and publicly supported alike, will function both as instruments of higher education and as centers for developing a national culture worthy of this rich and powerful land.

Are we capable of evolving an American civilization commensurate with our opportunities? Surely this is the challenging question of the day. This is the question which transcends in importance even the most pressing demands of our troubled post-war period. Less than a century ago many people expressed grave doubts whether learning could be cultivated in a democracy. The last fifty years have proved them to be wrong. We can be proud of what has been accomplished in this republic, but only a start has been made. We must press on with all the earnestness and faith of those early settlers whose brave aspirations we honor by our ceremonies today.

A wave of anti-intellectualism is passing round the world. We see evidences of it on every hand but it is no new phenomenon. Before Harvard was founded Bacon referred to the "objections concerning the dignity of learning which arise from ignorance, appearing sometimes in the zeal and jealousy of divines; sometimes in the severity and arrogance of politicians; sometimes in the errors and imperfections of learned men themselves." With these sources of objections we are all familiar. But the anti-intellectualism of the present is in part

a protest—a most ungrateful protest, to be sure—against the benefactions of the learned world. It expresses a rebellion against the very triumphs of applied science, against the machines from which we would not be separated and yet towards which we feel a deep resentment. It is the expression of our weariness as we see an ever increasing wealth of new knowledge poured at our feet by the scholars of the arts and letters no less than by the scientists. Intellectual anarchy in our schools and colleges has been more or less rife for the better part of a hundred years. "Will it never end?" we are tempted to cry in despair.

To bring order out of an educational chaos is the mission of the liberal arts curriculum of our universities—that is why it is important that this ancient tradition be not overwhelmed. Those of us who have faith in human reason believe that in the next hundred years we can build an educational basis for a unified, coherent culture suited to a democratic country in a scientific age, no chauvinistic dogma, but a true national culture fully cognizant of the international character of learning. In this undertaking the schools are involved quite as much as the universities, but the latter must lead the way. The older educational discipline, whether we like it or not, was disrupted before any of us were born. It was based on the study of the classics and mathematics; it provided a common background which steadied the thinking of all educated men.

We cannot bring back this system if we would, but we must find its modern equivalent. Like our ancestors we must study the past, for "he who is ignorant of what occurred before he was born is always a child." In my opinion it is primarily the past development of our modern era which we must study and study most exhaustively and critically. We must examine the immediate origins of our political, economic and cultural life and then work backwards. We must now, however, spread the inquiry over so wide a range that the average men will obtain only a superficial knowledge. It does not seem to me to be a step in the right direction to dip our children first in one barrel of tinted whitewash and then in another. The equivalent of the old classical discipline is not to be found in a bow-

ing acquaintance with universal history and general science, and an exposure to scattered examples of art and literature. Our present educational practice which insists on the thorough study of at least one discipline is certainly sound.

For the development of a national culture based on a study of the past, one condition is essential. This is absolute freedom of discussion, absolutely unmolested inquiry. We must have a spirit of tolerance which allows the expression of all opinions however heretical they may appear. Since the seventeenth century this has been achieved in the realm of religion. It is no longer possible for some bigoted Protestant to object if any person within the universities or without expounds sympathetically the philosophy of St. Thomas Aquinas. It is no longer possible for a member of the Roman Catholic Church to take offense at a critical discussion of Galileo's trial. Statements believed to be erroneous are met openly and fairly by counter arguments. But there is no persecution; there has been an end to religious bigotry in this country, and there are no signs of its return.

Will the same conditions prevail in the future when political and economic problems are examined? Unfortunately, there are ominous signs that a new form of bigotry may arise. This is most serious, for we cannot develop the unifying educational forces we so sorely need unless all matters may be openly discussed. The origin of the Constitution, for example, the functioning of the three branches of the federal government, the forces of modern capitalism, must be dissected as fearlessly as the geologist examines the origin of the rocks. On this point there can be no compromise; we are either afraid of heresy or we are not. If we are afraid, there will be no adequate discussion of the genesis of our national life; the door will be shut to the development of a culture which will satisfy our needs.

Harvard was founded by dissenters. Before two generations had passed there was a general dissent from the first dissent. Heresy has long been in the air. We are proud of the freedom which has made this possible even when we most dislike some particular form of heresy we may encounter.

In a debate in the House of Commons, Gladstone reviewed the history of Oxford and spoke of the lamentable condition of that institution during the reign of Queen Mary. Quoting a historian of that period he continued: "The cause of the failure is easy to discover. The universities had everything, except the most necessary element of all—Freedom: which by the immutable laws of nature, is always an indispensable condition of real and permanent prosperity in the higher intellectual cultivation and its organs." With this conclusion all who cherish our heritage must agree: Without freedom the prosperity most important for this country cannot be achieved—the prosperity of our cultural life.

The university tradition in this country has been sustained through three centuries by the courage and sacrifice of many men. An ever-increasing number of benefactors have followed John Harvard's example. Patrons of learning have not only favored Harvard with their gifts, but have established and aided other universities throughout the nation. In cities and states institutions have been founded and supported from the public funds. In all our colleges learned men have labored with little material reward to "advance learning and perpetuate it to posterity." Teachers of the young have so lived their lives that the coming generations might be inspired with a love of wisdom. All this devotion on the part of those concerned with higher education stands as a clear witness to the significance of what was here envisaged three hundred years ago. He who enters a university walks on hallowed ground.

If we attempt to sum up in one phrase the aim of higher education, we can do no better than to speak of "the search for the truth." A little more than a hundred years ago when President Quincy was exploring the Harvard archives, he came upon the early record book in which is the famous drawing of the Harvard seal as specified by a vote of the overseers in 1643—the open books with the word "Veritas." Delighted by his discovery Quincy restored Veritas to the college arms, but it was not until 1885 that this word found a permanent place upon our seal. To me there is an arresting symbolism in this bit of apparently accidental history. It is significant that

the Puritan founders chose the word *Veritas*, for this word is the touchstone of the real university tradition. And it is fitting that the original seal was finally re-adopted just when Harvard was developing into a great modern university.

When the Puritans wrote *Veritas* upon the open books, they had in mind two paths by which truth could be obtained: One, Revelation as interpreted with the aid of human reason; the other, the advancement of knowledge and learning. Bacon expressed the spirit of the age which was to follow when he declared that a man cannot "search too far or be too well studied in the book of God's word, or in the book of God's work, but rather let men endeavor an endless progress or proficiencie in both." In the present century a French mathematician wrote, "The search for truth should be the goal of our activities; it is the sole end worthy of them. . . . If we wish more and more to free man from material cares, it is that he may be able to employ the liberty obtained in the study and contemplation of truth. . . . When I speak of truth," he continued, "I refer to scientific truth but also moral truth of which what we call justice is only one aspect. . . . Whosoever loves the one cannot help loving the other."

This same thought was expressed by President Eliot in an address in 1891 which stands as a challenge to our time. Speaking of a university as a "society of learned men," he defined their goal as "the incessant, quiet, single-minded search after new truth, the condition for both the material and intellectual progress of the nation and the race." The intellectual progress of the race—during the coming century of academic history what gifts will the American people bring to further this great advance? A hundred years from today the record will be read. With humility but with hope we look forward to that moment. May it then be manifest to all that the universities of this country have led the way to new light, and may the nation give thanks that Harvard was founded.

JAMES BRYANT CONANT,
President, Harvard University

Science in an American Program for Social Progress*

THE rôle which science has played in social progress is nowhere more succinctly set forth than in the preamble to resolutions adopted by the American Association for Advancement of Science, and submitted to the President of the United States in December, 1934:

WHEREAS, Development and application of science have been basic to the economic and social progress of nations, making possible such movements as universal education, abolition of child labor and slavery, emancipation of women, insurance and pensions, moderate hours of labor and great improvement in the standards of health, comfort and satisfaction in living; and

WHEREAS, Scientific developments have not only conferred general benefits, but in particular have been largely effective in leading to recovery from previous depressions—as the railroad industry following the depression of 1870, the electric industry following that of 1896, and the automobile industry following that of 1907; and

WHEREAS, Scientific research is a productive investment proven by experience to yield a high rate of return, as illustrated by the saving of \$2,000,000,000 per year from the Bessemer steel process and of over \$1,000,000 per day from the modern incandescent lamp, and as illustrated also by the entire chemical, electrical, communication, transportation and metallurgical industries and by the enormous employment in such industries; . . .

That our national health, prosperity, pleasure, and indeed our very existence, depend largely upon science for their maintenance and their future development, no informed person would deny. Within our generation this truth has been emphasized, for we have come to the end of free expansion by migration westward, and of free exploitation of ever newly discov-

* An address delivered before the National Industrial Conference Board in New York, May 28, 1936, as part of a symposium on "The Elements of an American Program for Social Progress."

ered resources of soil and minerals. We have reached the point beyond which further increase in our wealth, population, physical comfort, and cultural opportunity will depend not on discovering new resources by geographical exploration but by wiser use of the resources that we now have, through scientific exploration.

This idea is not new, but I doubt if we realize its profound significance; it marks a turning point in the history of the world! How did the Egyptians, the Greeks, and the Romans secure their wealth? By plunder and taxation of conquered nations and by "labor-saving" production through the work of enslaved peoples. How were the great commerce and wealth of England acquired? Through geographical exploration, conquest and colonization of virgin lands with such returns in wealth as we find it hard now to comprehend. For example, the profits of the British East India Company were of the order of 100 per cent on each voyage of its merchantmen.

Now all livable portions of the world are settled and closely interconnected by travel and trade. Probably the Italian conquest of Ethiopia and Japan's expansions into China are about the ending of the centuries old struggle for wealth through territorial conquest. In our own country, Horace Greeley's advice "Go West, young man, go West," no longer has its original significance. The geographical pioneer is now supplanted by the scientific pioneer, whose thrill of discovery or urge for reward is no less keen and whose fields of exploration are probably unlimited. Without the scientific pioneer our civilization would stand still and our spirit would stagnate; with him mankind will continue to work toward his higher destiny. This being so, our problem is to make science as effective an element as possible in our American program for social progress.

Practically all scientific work in the United States is carried on under one or another of three auspices: the government, industrial organizations, and educational institutions or similar altruistic foundations. The scientific services of the federal government are spread through forty bureaus, of which eighteen are primarily scientific. There are about 630 colleges and universities in the United States, including 155 engineering

schools. There are upwards of 1,600 research laboratories operated by industrial companies. Watson Davis, of Science Service, recently estimated the total annual national expenditure in scientific research work as about \$100,000,000, divided roughly equally between government, educational institutions, and industry. Each of these three categories of scientific work has its proper scope, limitations, and opportunities. Each has its peculiar problems of operation. I will proceed, therefore, to discuss them separately.

SCIENCE IN GOVERNMENT

During the two and a half years of its existence, terminating last December, I had the extraordinary opportunity to serve as chairman of the Science Advisory Board, under which, with its subcommittees, more than a hundred of the country's ablest scientists and engineers gave free and devoted service to the scientific interests of the government at the request of the President. Out of this experience I could draw a kaleidoscopic picture of the scientific work of the government: work of vast importance to the welfare of the country; staffed by an army of able scientists single-mindedly devoted to their respective jobs; financed by less than half of one per cent of the total governmental budget; replete with duplicating and unco-ordinated effort; subject to the charge that many projects are started but few are ever stopped; with partisan loyalties to bureaus and departments continually blocking attempts at changes in organization even when there is no disagreement as to the improved efficiency that would thereby be gained; with almost no executive officers, more permanent than the current administration, to co-ordinate the various bureaus, direct their programs, and plan their future; yet with sincere and often courageous concern on the part of department secretaries for the efficient working of the bureaus under their jurisdictions; and under all these conditions a surprisingly effective service—these are some of the facets of this kaleidoscopic picture. (I except the two military departments, which are organized on a more permanent basis.)

This is not the occasion to discuss the specific problems

which were referred to the Science Advisory Board—which were technical problems of organization, scientific programs, budgets, or personnel. Suffice it to say that there was generally good co-operation from high officials from the President down and that there was much actual accomplishment, reflected in the present and pending operations of a number of the scientific bureaus, despite regrettable failure to achieve results in some important matters. But of greater significance than these specific jobs was the development in the minds of the Board of a certain conception of the rôle of the government in science which I cannot present better than by quoting certain passages from the final report of the Science Advisory Board to the President:

An absolute prerequisite to (our national) welfare, independent of political theories and basic to attempts at national planning or improvement of any kind or degree, is adequate scientific information regarding the materials and forces with which great groups of our population have to deal. This is the justification for the existence of scientific bureaus in the Government.

In a democracy like ours, designed to safeguard personal liberty and to stimulate individual initiative within the framework of "general welfare," there is no need for the Government to embark upon comprehensive programs in pure science, invention, or industrial development. There are, however, numerous scientific services of such wide scope and universal utility that no agency except the Government is competent adequately to handle them. (In this category are public health, weather forecasting, topographic mapping, development of scientific and technical standards, mineral surveys and statistics, safety codes, patents, soil science, improvement of crops and live stock.) There are other scientific services which are essentially supplementary to non-scientific governmental activities. (Among these are engineering work relating to flood control, water supply and aids to navigation; scientific aids to national defense; development of standards for the purchasing of supplies for use of governmental bureaus.) There are also fields of scientific or technical development which hold evident promise of benefiting the public but which are not proper nor practical fields for private initiative (such as the activities of the National Advisory Committee for Aeronautics, and the financial aid to land-grant colleges for development of agricul-

ture and engineering arts.) In these three categories and in this order of importance lie the proper scientific activities of the Government.

The first scientific bureaus to be established had to concern themselves but little with the co-ordination of their programs. Each filled a definite need and its purpose was to gather facts in a designated field. (These Federal services, however, have expanded enormously with the increasingly complex demands of our civilization.) Side by side with the growth in the number of bureaus and in the multiplicity of their functions, there should have been applied (more rigorously) the principle of co-ordination of related work, no matter in what bureaus the work may be done. (This is a primary requisite for efficiency.)

Freedom of scientific work from political or policy-making influences is a second prime consideration. Whatever the trend of social or political thought and whatever the degree of national planning, the people of the country have the right to expect that the scientific services are always free to report and interpret the facts in a given field of enquiry as they find them and not as the government of the day may wish to have them reported or interpreted. They should be free to produce results that are not discolored by the opinions and snap judgments of policy-making political groups who may wish to put the dignity of "science" behind their plans in order to win public approval.

Over and above the work of particular scientific bureaus, there is increasing activity on the part of the Government in undertaking large projects whose feasibility or justification are matters for technical decision from many points of view: scientific, economic, humanitarian. Examples of such projects are: irrigation, power development, flood control, soil erosion control, shelter belt, waterways, retirement of sub-marginal land and colonization. Where huge sums are involved and large groups of people affected, it is more than ever necessary that decisions and policies should be settled only after the most thorough, competent, and disinterested study of such questions as: Is the project technically feasible? Will it accomplish its purpose? What are the alternatives, and has the best plan been selected? Will the benefits justify the expenditure? For technical advice on such questions, Congress and the Executive Departments should have ready access to, and should use, the best talent available both within and outside of the government services.

It is (therefore) the concern of every citizen that there be

available to government the most competent and impartial advice which can be found. The endurance of our traditional form of government will depend in increasing measure upon the quality of expert judgment, tempered with experience, which is available to government, and the willingness of government to follow such judgment.

Considerations like these led the Science Advisory Board to recommend to the President the permanent establishment of a scientific advisory council, its members to be nominated by the National Academy of Sciences and to serve without pay, but with provision for necessary travel and secretarial expenses. This council would be enabled to appoint subcommittees on the principal scientific bureaus. The duties of this group would consist, first, in assisting the bureau chiefs to formulate general programs and policies; second, in promoting co-ordination and working against improper duplication of effort of the various bureaus; third, in interpreting, criticizing, or defending the work and plans of the bureaus before the responsible department secretaries and congressional committees; fourth, in giving to the director of the budget its critical and independent judgment (advisory only) regarding budgets and requests for appropriations for scientific work in the non-military departments.

It is my conviction, shared by my engineering and scientific colleagues who have studied the situation during the past three years, that some such plan would be feasible, and that it would do more to increase the efficiency and the prestige of the federal scientific services than can be achieved in any other way. It may be that thought of such an independent and sometimes critical advisory service is not relished by any official who is more concerned with maintaining his unlimited authority than with ensuring efficient conduct of the people's business for which he is responsible. But when I heard a high official say that "of course the plan is impractical," I thought to myself that this only means that he and some of his colleagues do not like it. Plans similar to the one here proposed have been in successful operation in several European countries in recent years. In Great Britain, for example, a group of the Empire's

greatest scientists act as official advisers to the privy council on all questions of programs and budgets for scientific work under governmental auspices.

SCIENCE IN INDUSTRY

Turning now to industry, we have no difficulty in defining its proper scope of scientific research: that type of research is justified which shows reasonable promise of producing better products, or desirable new products which can be made and sold with profit, or of reducing the cost of existing products. Within this simple definition, however, lies great scope for informed judgment, courage, and skill in the decision as to "what constitutes reasonable promise?" and "how great is this promise in comparison with the probable cost?" It is the action on such questions that largely determines the future growth or decay of an industry.

Experience has convinced progressive industries that as much as several per cent of income can profitably be spent on research. This expenditure is both an investment for future dividends and an insurance against future loss through obsolescence or more enlightened competition. Dr. Robert A. Millikan emphasized the investment aspect when he said: "Research pays because you know what you want, go after it with informed brains by the scientific method, and in general get it. But it often yields (extra) dividends because you get something more that you didn't go after." And Francis Bacon, over 300 years ago, described the fate of the industry which neglects research when he wrote: "That which man altereth not for the better, Time, the Great Innovator, altereth for the worse." The statement is not unusual which was made a few years ago by the president of a great manufacturing company when he told his stockholders that 60 per cent of sales that year had been of products that ten years before were unknown.

Several years ago the National Research Council compared the financial health of industries, as a function of their activity in research, as measured for example by relative expenditures for research. At the top were such industries as the chemical, electrical, communications, and automotive; toward the bot-

tom were railroads, lumber, and textiles. The correlation between support of research and financial prosperity was decidedly striking, and has been an effective object lesson.

In any attempt to make science more effective in industry and through it more helpful to the public, certain obstacles must be met and overcome.

First I would mention the so-called "hard-headed, practical business man;" a man without vision, imagination, or enthusiasm for new things; a man who scoffs at theory or a college degree; a man whose sole criterion of proper practice is that which he has been accustomed to in the past; a man who spends as little as he can on research in order that his profits day by day may be larger. The withering policies of such men have driven many a flourishing business into obsolescence. If, by accident, a research laboratory has been set up in this man's company, its staff will be among the first to be fired in a depression, thus saving temporarily dollars but losing permanently the capital investment in trained intelligence.

In this same class I would place that type of control, sometimes exercised by a financial group, which focuses attention on the profits of the current year to practical exclusion of developing strength for the future. I see many examples of this, in which the organization has become so weakened by the time it sees its mistake that it has not the strength to embark on a different course, and therefore continues to become sicker and sicker. One species of this type of business anemia arises when the cost accountant becomes the master instead of the servant, applying cut-and-dried methods of evaluation, on a monthly or yearly basis without discrimination and without realizing the values which may reside in a research, a big idea, or an active brain.

From these two examples, which I have purposely stated strongly, you may infer that I advocate the growing tendency to give technically trained men an increasing share in the management and policy-making activities of industry—and I do not mean to infer that financially trained men are not also essential.

A second obstacle is the cost, delay, and uncertainty in the

operations of our out-moded patent procedures. This is one of the major hindrances to the development of new industries and the supplying of new employment through the results of science. It is greatly to be hoped that favorable action will be taken by Congress on several recommendations by the Science Advisory Board aimed at increasing the presumptive validity of patents and the accuracy and ease of decisions by the courts.

A third obstacle is found in the increasing regulatory activities of the government for the stated objective of protecting the public, but sometimes in the nature of disastrous boomerangs. I believe that an increasing degree of regulation of business for protection of the public is a necessary accompaniment of increasing general complexity and competition. But this regulation should be benevolent and intelligent, two characteristics which are not as prevalent as they should be. A fundamental difficulty appears to reside in the fact that in general we are governed by politicians rather than by statesmen. By this I mean that our elected rulers are generally men of alert perception to public opinion, nimble in debate, persuasive in oratory, and skilful in dealing with group psychology; but these excellent qualities do not necessarily fit them to make wise decisions in such questions as: What technical procedure of subsidies, or curtailed planting, or research to create new industrial uses for his products, will best help the farmer and at the same time the country as a whole? or, Is a public utility company justified in charging on its bills to today's customers part of the cost of research designed to improve or cheapen the service to tomorrow's customers? These are profound questions, which greatly affect the ability of science to promote our social welfare. Our present method of deciding such questions is frequently expensive, illogical, or ludicrous and is sometimes disastrous. However, while recognizing this difficulty, I can offer no solution to it and am unable to prove that we do not have the best of all possible types of governments in the best of all possible worlds, in the long run. Thus I will mention the government no more except to point out that its present attitude toward both industry and science is in unflattering contrast with that

of several European countries which have helped industry in a positive way by offering it definite incentives to embark upon a more active program of scientific and industrial research, considering this to be a national investment for future prosperity and employment.

SCIENCE IN EDUCATIONAL INSTITUTIONS

In educational institutions, science has no limitations in search for truth except those imposed by availability of ideas, workers, facilities, and funds. Such institutions have always been the places where the great bulk of new discoveries are made and ideas born, and this will continue to be so since there exist no other organizations where such studies can be similarly pursued. The practical aims of educational institutions in science are well described by Dr. Isaiah Bowman: "The trade school exists for the admirable purpose of putting practically trained men into jobs; the university exists, among other things, to create and expand the sciences that provide the jobs. It is in engineering that these two points of view are effectively joined."

The fact that the universities and engineering schools do feed industry with most of the new ideas, which industry then transforms into products of social value, was illustrated by Dr. Roger Adams in his recent presidential address before the American Chemical Society when he said, "The basic and fundamental information for over 95 per cent of the industrial processes has been originally discovered and described by the university investigator." I recall a statement written by Herbert Hoover, when he was secretary of commerce, in which he expressed concern lest the industrial supremacy of America should be lost because our industrial leaders were not actively enough concerned with laying the foundations for the industrial future by strongly supporting pure scientific work at the present time. Mr. Hoover not only believed this but he worked to bring about increased support of pure science by industry until the presidency brought him new and greater problems.

Growth of industry and employment, and gain in civilization through science are like the growth of plants in Nature:

of many seeds which are scattered, only a few grow to be vigorous plants; but if no seeds were produced and scattered there would be no plants at all. Scientific discoveries are the seeds of industry and public welfare, and the universities are the nurseries in which they are produced and nurtured to the point where some of them can be transplanted into the fields of industry. I once likened new industries to babies—they need shelter and nourishment, which they take in the form of patent protection and financing. But, before all, they need to be born, and their parents are science and invention. Neither laws, nor committees, nor juggling acts, nor wishful thinking can perform the first necessary step of conception. To maintain and advance our civilization we need more and better scientific seeds and industrial babies. The educational institutions of higher learning are the birthplaces of this new knowledge, as well as the training and proving grounds for the young men and women who will carry this knowledge on and put it to practical use.

In discussing this matter with my friend Dr. Charles F. Kettering a couple of weeks ago, he expressed the opinion that one of the major problems of both industry and the universities is to facilitate this production and nurture of the seeds of industrial progress in the universities, and to narrow the gap and hazard between discovery and successfully launched business. To do this requires closer co-operation between industry and educational institutions, involving more active research programs in the institutions, their more generous financial support by industry or by the captains of industry, and closer personal contacts between the men in the two groups who have related interests.

My own observations of what can be accomplished in an educational institution like the one which I represent convince me that there are really great opportunities along these lines. I have seen the sprouting of literally hundreds of promising ideas; I have seen the co-operative effort of professorial chemists, physicists, electrical engineers and metallurgists solve serious industrial problems that had baffled the skilled practical men of industry; I have seen a little of the desired financial

support; and I have seen productive mutual stimulation in such co-operation. As I see it, a great university or engineering school already possesses, because of its teaching responsibilities, the principal overhead of staff, facilities and administrative organization necessary for a large research program, so that relatively large returns in the fields of research and development can be secured with relatively little additional financial support. It is in this direction that there lies, in my judgment, the greatest opportunity for increased contributions to public welfare through science in the leading educational institutions, and thus far the surface has only been scratched. I believe that, with more adequate financial support, a new order of institutional public service will be possible.

One peculiarity of scientific research is that its results can usually not be foreseen, for if they could be foretold they would not be new. Also, when a new discovery is made, it is not usually immediately obvious as to the possibilities of its practical uses. And again, the solution of a scientific problem may be a long, hard struggle—longer than was realized by a visitor who asked Harvard's President Conant what he was doing in his laboratory. When Conant replied, "We are seeking to discover the chemical formula for chlorophyll," his visitor exclaimed, "Why, how is that? You were working on that problem when I was here last year!"

Because of these uncertainties I cannot tell you just what the next big scientific developments will be, but I can assure you that they will come and that they will be important. Among the fields that seem to me to show especial promise are: development of new industrial uses for farm products; improvements in transmission and utilization of electric power; great developments in materials and methods of building construction; increased range and precision of weather forecasting; conquest of hitherto unconquered diseases, both physical and mental; better regulation of bodily functions; a new era in biological discovery operating with the tools of physics, chemistry and engineering; and a similar new era in physical science centered around atomic nuclear transformations. The field is literally limitless.

Having thus suggested a few of the more significant ways in which science may be made to contribute more effectively to the American Program for Social Progress, through the agencies of government, industry and education, I close by saying that the greatest of all contributions of science is not to be found in the comforts, pleasures, or profits which flow from it, but in the freedom and imagination which it has brought to the human spirit and the sense of relationship and unity in the world. Of all descriptions of the true spirit of science I like best the words of the ancient Greek philosopher, Aristotle, which appear engraved on the beautiful home of the National Academy of Sciences in Washington: "Search for truth is in one way hard and in another way easy, for it is evident that no one can master it fully nor miss it wholly, but each adds a little to our knowledge of Nature, and from all the facts assembled there arises a certain grandeur."

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History and Education*

THE French philosopher Voltaire is said to have ended a letter to a friend with the following words: "Excuse my writing so long a letter, but I had not time enough for a short one." I was reminded of this story when Dean Holmes asked me to deliver a short speech on the history of education. This problem actually involves the whole question of the value of history, and it would be easier to deal with the subject in a long course of lectures. This all the more since, according to tradition, German scholars need at least one lecture for an introductory examination of the philosophic pre-suppositions necessary for an adequate treatment of their subject. But, as a matter of fact, every great nation must plead guilty to having contributed an enormous amount of literature to the problem just mentioned.

Fortunately there remains against those writers who have advocated the study of history in voluminous works the short but impressive and well known dictum of a great American industrialist, who said: "History is bunk." Very few ideas in this world are really new; and this man's opinion was also foreshadowed in some very respectable works of literature, especially in the works of Jean Jacques Rousseau and Friedrich Nietzsche. And even the great German poet Goethe anticipated Mr. Ford. It is doubtless a feeling of the too heavy weight of the past which led him to compose the epigrammatic poem:

Amerika, du hast es besser
Als unser Kontinent, das alte,
Hast keine verfallene Schloesser
Und keine Basalte.
Dich stoert nicht im Innern,
Zu lebendiger Zeit,
Unnuetzes Erinnern
Und vergeblicher Streit.

* An address delivered at the Tercentenary Dinner of the Alumni Association of the Harvard Graduate School of Education, September 17, 1936.

And since Goethe told one of his friends that he had always hated to learn anything which enlarged his amount of knowledge without simultaneously enriching his inner life, he also might have been tempted to use the word "Bunk" if he had listened to the sort of historical instruction and sentimental lingering in the past that we still observe in many of our classrooms today and in many of our political assemblies. Now the thinkers whom I mentioned, in spite of their protests against conventional education, were perhaps still too much influenced by books and schoolmasters to formulate their opinions on history so briefly, so courageously, and so illuminatingly as the great American. But if we try to simplify their ideas according to the modern manner of telegrams and advertisements, we could perhaps say, not exactly "History is bunk," but rather "History is a danger." It is a danger if it turns our thoughts exclusively back to the past and leads us into a dreamland where, under the pretext of reverence for our ancestors or the pretext of historical research, we may forget our obligations and duties amidst the conflicts of the present. History is a danger if it helps to retain customs and opinions which are no longer relevant to the demands of a living society, but which are relics of periods outlived; and history is a danger if it supports groups which have greater interest in traditions than in the constructive and forward-looking ideas of their own time.

What, then, gives us the right to advocate historical instruction not only for the training of teachers but also in the field of education generally?

All narrow-mindedness is largely due to a lack of the sense of comparison. A man who has the opportunity for comparing his own manner of living, his habits, his customs and his institutions with those of other peoples and nations, will no longer think that the way in which they prepare the chicken and the apple pie at his own home is the only legal way of preparing chicken and apple pie. Some have more apples and less pastry, and others have more pastry and fewer apples. Some like pie with whipped cream and others with ice cream,

and some even like pie with cheese, a habit which proves to me—in addition to my difficulties with the English language and in spite of my reverence for American customs—that I am not yet completely Americanized. Now, since there are few educators who have the opportunity—and the money—to travel in other countries and to compare the way in which they prepare and serve up the bounties of civilization to the younger generation with the similar attempts of their neighbors, we have introduced into the curriculum of the more advanced institutions for the training of teachers the subject of Comparative Education. Comparative education is the theoretical substitute for the modern educator of what our ancestors called the “grand tour” or the “Bildungsreise.” Provided they had the fortune and the social standard, they would send their sons at the age of twenty to foreign countries, introduce them to families of culture and experience, and expect that they would come back, not only with refined habits, but also with a broader knowledge of the world, and perhaps also with certain acquaintances which helped the young gentleman not to go entirely unprepared into the later experiences of married life, for which sort of education of the youngsters the city of Paris and other capitals had provided a considerable amount of charming opportunity. For this kind of education, I am sorry to say, our modern comparative courses can not yet provide the necessary opportunities.

The “grand tour” or “Bildungsreise” was one of the prerequisites which the German philosopher and statesman Leibnitz, writing after the Thirty Years War, demands in his interesting treatise on the training of jurists and diplomats. And though the writer was very young himself, he recommended to the travelers, should they intend to discover diplomatic secrets or secrets of trade, that they come to good terms with the servants and chamberlains of influential men and eventually bribe them. You have perhaps heard that in earlier times and in different political structures bribes played a very great rôle, particularly in the securing of public positions. Our courses in comparative education do not supply

suggestions like these. But here we have no reason to be sorry, since our public and political life has so far improved that even to speak of bribes would mean to refer to events in the remote past which have no connection with our own times!

When a young man with certain aspirations went on his great tour, he not only intended to study the present conditions in the different countries, but in order to understand better what he was going to see he studied carefully the history of the nations he was going to visit. And if he, like most of the young travelers, belonged to the group of men which wanted later to be appointed to the civil or diplomatic service, he studied especially those aspects of the nation's history which had the closest relationship to his future activities and responsibilities, diplomatic and governmental. This specific interest of the culturally leading groups of earlier societies is one of the reasons that the study and teaching of history was for so long a time one-sidedly dominated by experts in the history of diplomatic affairs.

Now, if we continue our comparison of the training of the modern teacher with the training in certain professions of earlier periods, it is very natural not only to instruct the young teacher along horizontal lines, on the level of our present situations and conditions, but to add the vertical to the horizontal and to introduce him into the history and the growth of the educational system and thought in different countries. Only in this way can the student of education acquire the knowledge necessary for the general understanding of his profession; he must learn not only that certain institutions of this or that character exist in this or that country, but he must learn why they exist and why in the frame of a given environment and under the lode star of certain ideals a nation develops its specific pattern for training the young. No man is able to acquire a fundamental insight into the significance and limitations of his vocation who sees it only from immediate contact. He will easily be caught in the snares of the daily routine, he is always in danger that his work will either bore him if he follows it too long, or that he will lose his sense of

proportion and consider himself and his job as the center of the world, or, as the old Homer would say, as the place *ὅθι τ' ὀμφαλὸς ἐστὶ θαλάσσης*, where is located the navel of the world. The danger of losing a proper notion of the adequate proportion of one's own rôle in the co-operative business of mankind is especially imminent in the teaching profession. Members of the younger generation, whether they like it or not, are by laws of the state and by the will of the parents compelled to listen to their teachers and are not usually sufficiently equipped to contradict the sublime wisdom showering copiously from the platform of the classroom. Furthermore, members of the teaching profession, especially in institutions of higher learning, are allowed to cultivate their interests and to do more or less productive research work in narrow fields. This dedication of a man's whole life to a small subject can be one of the most productive of all tasks, and I am the last one who would not respect the activities of a research worker who sacrifices his person for the solution of a problem which may be ridiculously small in the eyes of a layman, but which may help to bring about a new discovery or invention for the benefit of mankind. But, nevertheless, there are ways for teachers and scholars to keep their minds open. One is to take an interest in the frictions and duties of public life, because if a man remains aloof, he misses an extremely educative experience. But if his interest is to be intelligent, he ought to avail himself of the inspiration and of the broadening influence of historical perspective. Sometimes when a neighbor asks me, "Why history?" I am tempted to answer, "Because we ought to be too selfish to be completely satisfied with spiritual intercourse among ourselves, and because we ought to be too modest to think that we can do our best without the support of the great men who have given their thought and their lives to our profession."

Very often the neglect of history is the result of the rather superficial assumption that history is worthless, because it is past; an opinion which more or less consciously involves the conviction that in the natural change of things mere chrono-

logical sequence is identical with progress and improvement. This idea may be natural enough to men who in the course of their lives have been fortunate enough to observe a continuous and uninterrupted advancement from the worse to the better. Happy the nation which, like the United States, can look back to a relatively steady and continuous growth. But even here the last decades have offered enough untoward instances to correct too lofty an optimism. For such an assertion we may take the example from our present environment. We are celebrating the tercentenary session of Harvard University, we may also celebrate the memory of a great educator who a century ago helped to pave the way for a free, unsectarian, national American education, Horace Mann. I think there are many reasons why our present and our coming generation of educators should not be content to rest happily on the results of this great man's labor and sacrifices and his conflicts with political and dogmatic reaction; on the contrary, we have many reasons to become immersed in his life in order to revive his spirit in ourselves.

The former professor of philosophy at Harvard University, George Santayana, wrote a very noteworthy sentence, which says: "Those who cannot remember the past are condemned to repeat it."

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The Fifth International Conference on Public Instruction

THE Fifth International Conference on Public Instruction was held in Geneva, Switzerland, July 13 to 17.

The program consisted of the presentation by the delegates from the countries represented, of reports concerning recent changes in the field of public education, and the discussion of recent publications of the International Bureau of Education on the construction of schools, on the organization and management of rural schools, and on the organization and management of special schools.

The following countries were represented by official delegates: Albania, Afghanistan, Germany, Argentina, Belgium, Bulgaria, Chile, Colombia, Denmark, Danzig, Egypt, Ecuador, Spain, United States, Estonia, France, Greece, Guatemala, Hungary, India, Iran, Ireland, Italy, Japan, Latvia, Lithuania, Nicaragua, Norway, Netherlands, Poland, Dominican Republic, Sweden, Switzerland, Czechoslovakia, Union of South Africa, Uruguay, Yugoslavia, and Finland. The total number of delegates was fifty. All of the United States delegates were present, as follows: Dr. Clarence S. Marsh, associate director of the American Council on Education; Dr. Fannie Fern Andrews, member of the Committee on International Aspects of Education of the American Council on Education; Dr. William Howes Collins, chairman of the Alumni Advisory Council of the National Student Federation of America, member of the Student Advisory Board of the National Institute of Public Affairs and of the Geneva School of International Studies, and Dr. James Frederick Rogers, United States Office of Education, who was chairman of the United States delegation.

The conference was organized by the International Bureau of Education. A. N. Caballero, Minister of Education of Colombia was elected president. Official business was conducted by the Council of the International Bureau. The following resolutions were presented to the Council:

THE ORGANIZATION OF SPECIAL SCHOOLS

Bearing in mind, that according to recent statistics, although the percentage of deaf-mutes and particularly of blind people is diminishing in a marked degree, the number of mentally defective—backward or mentally unstable—tends on the contrary to increase in alarming proportions;

That it behooves public authorities to take useful measures to remedy the causes of this increase (hereditary diseases, alcoholism, conditions of modern life);

But is the duty of educationists to concern themselves with the conditions by which the physically defectives, blind and deaf-mutes, on the one hand, and the mentally defective on the other hand, may be, by an appropriate education, enabled to live an economic and social life more useful to themselves and to society—and trained like other children to profit by the *moral, artistic and intellectual riches which truly benefit human life*;

Bearing in mind on the other hand, that in the sorting out of mentally defective, extreme caution must be taken, so as to avoid classifying prematurely as sub-normal children who may be able to live an almost normal life, thus lowering for the whole of their life their prestige in their own eyes and in the eyes of society;

Recommendations to the Ministries of Public Instruction in the various countries:

1. That the creation of special classes or schools and, if need be, of boarding schools, for the physically defective, on the one hand, and for the mentally defective, on the other hand, shall be compulsory for all authorities concerned with the organization of schools;

That these establishments shall be created under such conditions that the special instruction shall not be available only to urban centers;

2. That the instruction given in them shall be under the same conditions of gratuity as the instruction given in the ordinary classes of normal children;

3. That, for boarders, scholarships shall be awarded liberally to the children of poor families;

4. That the education shall include not only

- (a) special culture (for example learning to speak and lip reading for deaf-mutes, reading and writing in

Braille, etc., for the blind) of which these children have need;

- (b) general culture, which ought to be, as far as possible, comparable with that given to other children; but also an appropriate vocational training, taking into account the state of the labor market;

5. That the fullest account should be taken of the children's possibilities; that in consequence classes should be very small, and methods of instruction should always be the individual, concrete, and active methods, already in use in a certain number of countries;

6. That the children should be considered not as being publicly assisted, but as educable; that, in consequence, the establishments devoted to them should belong to the ministries intrusted in the various nations with public instruction;

7. That the selection of sub-normal children should be carried out through a close collaboration between teachers and doctor-psychiatrists—and that it should be effected with extreme caution;

8. That initiation into the special teaching required should, if possible, be given to future teachers in normal schools or training colleges; that probationary periods should be instituted for those who wish ultimately to teach in special schools; that access to these probationary periods should be facilitated by the granting of sufficient scholarships, or by the continuance of the payment of salary;

9. That a supplementary salary should be granted to teachers who, holding a certificate of aptitude for the teaching of abnormal children, effectively teach in special schools.

LEGISLATION REGULATING SCHOOL BUILDINGS

Considering that the modern school should give the child a really living education, making a large appeal not only to book learning but also to the child's observation of his environment and to his various natural activities; that it should utilize in a large measure the new means of information placed at its disposal by modern science (gramophone, wireless, lantern slides and films, etc.);

That, in addition, it can no longer be limited to the acquisition of the "tools of the intellect" (reading, writing, arithmetic, drawing)—and the essential knowledge that no modern man can be without—that it should also insure to all the children committed to its charge as complete as possible a physical, intellectual, moral and social development;

That consequently it ought to guarantee to these children healthy conditions of school life, to supervise their physical development, providing such supplementary food as may be necessary, at the same time teaching them to acquire sound health habits;

That manual activities should be given their rightful place in the school so as to insure a harmonious development of both intellectual and physical faculties, and to provide a comprehensive vocational orientation for the older children about to leave school;

That the moral and aesthetic education of children should include the organization of school societies and gatherings of which the school itself should always be the center, and that the children should continue to participate in these, even after they have left school;

That in many countries the erection of new school buildings would help in the fight against unemployment and the financial distress.

Recommendations to the Ministries of Public Instruction in the various countries:

1. That, in designing school buildings, while structural and hygienic needs should be given due importance, the interests of education should be the first consideration, and that the opinion of school authorities and teachers should carry great weight;

2. That the elementary schools should be built, as far as possible, not in the heart of the towns but on sites where large playgrounds are possible as well as spacious premises and where playing fields can be properly laid out;

3. That the planning of school buildings (orientation and size of classrooms, means of access, ventilation, lighting, heating), should be influenced by local conditions and by the desirability of harmonizing the school with its surroundings, but above all by hygienic considerations;

4. That the size of the classrooms, the type and arrangement of the furniture and equipment should be determined in consideration of the peculiar needs of the "activity" school;

5. That provision should be made for libraries and for the use of the gramophone, school wireless, lantern slides or films, etc.;

6. That schools should be provided with school gardens, demonstration plots, and space for open-air classes;

7. That they should also possess separate art rooms and workshops, and, for girls, rooms for domestic subjects (in particular needlework, cooking and laundry) ;

8. That, to promote the physical development of the children under suitable conditions, the schools should be provided in all cases with refreshment rooms or school canteens, school clinics with the necessary equipment and materials, playing fields, gymnasias and also wash basins, bathrooms, and showers ;

9. That the premises should be equipped for school and post-school activities (reading rooms, halls for lantern shows, assembly halls), the poorer schools being allowed the possibility of utilizing one room for the several activities ;

10. That, as far as possible, these *desiderata* should apply not only to urban schools, but also to rural schools, the state, if necessary, aiding local authorities in rural areas ;

11. That programs for new school buildings should form part of the public works undertaking to combat the economic crisis.

THE ORGANIZATION OF RURAL EDUCATION

Considering that in various countries the peasant class constitutes a reservoir of physical health and an element of moral force which it is necessary to safeguard in integrity by fighting against the drift to the towns and the depopulation of the country ;

That the conditions of modern civilization and of agriculture make it possible to organize an easier and a more comfortable life in the country ;

That, if the development of instruction has not contributed as much as some would lead us to believe to keeping young people in the country, this grievance could in some cases be attributed to the schools ;

That, on the contrary, the rural school, without aiming at giving a truly agricultural teaching, can and ought to enable country children to understand the importance and the social and intellectual dignity of peasant life, and to give them the scientific knowledge which is required today as the basis of an intelligent development of rural vocations ;

Considering that, on the whole, and for varying reasons, the problem of the rural school is to be found in almost all countries today.

Recommendations to the Ministries of Public Instruction in the various countries :

NATIONAL INSTITUTE OF PUBLIC INSTRUCTION

1. That in principle the education given to the children in rural schools should not be in any way inferior to that given to the children in urban schools, and that it should permit them to pass into secondary schools;

2. That, in practice, and to assure greater justice in the field of education, an effort should be made to remedy as far as possible the unfavorable conditions existing in rural schools;

3. That the same level of instruction should be assured in the country and in the towns, the teachers naturally having the right to adapt the curricula to local conditions and, in particular, to draw their "centers of interest" from the environment in which their pupils live;

4. That an effort should be made to adapt the organization of rural schools (holidays, vacations, time-tables, as well as curricula) taking account of the conditions of local or regional life;

5. That, in order to assure a more complete community spirit between urban and rural schools, both should always be under the same ministry;

6. That, in the general programs, an adequate place should be given to the rudiments of rural life;

7. That rural teachers should utilize the peculiar didactic facilities which their environment offers them to give a concrete and living character to their teaching;

8. That, in the upper classes of the rural schools, the scientific instruction, while refraining from being truly agricultural, should deal particularly with the rudiments which agriculturists ought to have today in order to carry out fruitfully and intelligently their profession;

9. That, in order to enable rural schools to give the children the full education to which they have the right, the maximum number of pupils to be admitted to the one-teacher schools should be strictly limited;

10. That an endeavor should be made to reduce as far as possible the number of one-teacher schools by the provision of central or consolidated schools; that, even if one-teacher schools are reserved for the younger pupils, central classes should, where possible, be established for the older boys and girls; that the necessary transport and canteen services should be organized for this purpose;

11. That, for young people of rural families, who wish to continue their studies and who do not desire a truly agricultural training, sections in which particular importance is given to ideas preparatory to rural life, should be established

in the senior or higher elementary schools, in addition to the general sections preparing for the higher elementary school certificates;

12. That teachers of rural schools should not be inferior in relation to those in town schools;

That, with this end in view, a general and professional training of the same level should be given to both, either in common or in special establishments for urban and rural teachers,—an adequate place being given in either case to rural elements, and in the case of women teachers to domestic elements;

13. That courses in agricultural or domestic instruction should be instituted for men and women teachers wishing to specialize in post-school or continuation work in rural areas;

14. That, in order to assure to a certain degree the stability of the rural teachers by compensating them for the inconveniences and the disadvantages of living away from the towns, special benefits should be granted to them;

15. That the work of the rural school properly so called should be supplemented or facilitated by extracurricular or post-school activities such as young farmers' clubs, itinerant libraries, rural wireless or educational cinematograph sessions, educational and cultural missions, correspondence courses, etc.

The report of the proceedings of the Conference will be published by the International Bureau of Education.

The Conference manifested great interest in the report, "Changes in the Field of the Educational Movement in the United States in 1935-36," presented by the chairman of the United States delegation. Questions were asked concerning the educational program in the C.C.C. camps, the methods of preparing educational films, the progress of the youth hostel movement in the United States, and the development of the educational guidance programs. The delegate from Bulgaria explained that Bulgaria was the first country to develop work camps for students, and the delegate from Germany spoke of the German Labor Service camps as a means of character training.

Other reports revealed that Denmark is making reforms in the middle and secondary schools with more emphasis than formerly on the modern teaching of geography, civics, and bi-

ology; that Egypt is creating a "national style of architecture" in its schools, and is allowing a half day, once a week, for "free work," and that France has raised the school-leaving age to fourteen.

The United States delegates recommended that the United States should participate in similar international conferences on public instruction, should they be held.

JAMES FREDERICK ROGERS,
Chairman of the United States Delegation

The Literature of Education

FORTY years ago Will S. Monroe published under the title, *Bibliography of Education*, the product of several years of effort in compiling a comprehensive list of books and pamphlets in the field of education. This compilation, which may be accepted as representing the worth while educational literature of the last decade of the nineteenth century, includes 3,200 titles, all in English except in the case of general reference works. Under the head of "Current American Educational Journals," the following titles are given: *Primary Teacher*, *Education*, *Educational Review*, *Intelligence*, *Journal of Education*, *Pedagogical Seminary*, *School Bulletin*, *School Journal*, *School Review*, *Popular Educator*, *Primary Education*, *Public School Journal*, and *Teachers Institute*. In his study, *Educational Periodicals during the Nineteenth Century*, S. E. Davis lists about fifty additional journals as being published in 1897. Most of these, however, had only a local circulation and were relatively unimportant. Hence, the list given by Will S. Monroe may be accepted as a measure of the worth while periodical literature of the period.

The scope of the educational literature of forty years ago is indicated by the following captions which were employed in classifying the 3,200 titles:

1. Works of reference
2. History of education
3. Theory of education
4. Principles and practice of teaching
5. Methods of instruction
6. School administration
7. Kindergarten
8. Education of colored children
9. Education of defective children
10. Professional education
11. Manual training
12. Philosophy
13. Psychology
14. Moral education

15. Physical education and school hygiene
16. Education of women
17. Self-culture and home education
18. Sociological aspects of education
19. School systems
20. Educational conferences and exhibits
21. American reports.

These rubrics together with the subdivisions show that in 1897 education was an extensive field of study.

We do not have a similar bibliography of education for 1936, but certain information can be cited upon which an estimate of the production of the books and pamphlets during the past forty years can be based. From 1898 to 1907, J. I. Wyer published an annual "Bibliography of Education" in the *Educational Review*. Three later compilations were published as bulletins of the United States Bureau of Education. The numbers of books and pamphlets in English in these annual lists are as follows:

1899	—	118
1900	—	117
1901	—	98
1902	—	90
1903	—	144
1904	—	177
1905	—	177
1906	—	135
1907	—	183
1908-09	—	455
1909-10	—	564

These figures show that during the years immediately following the publication of the *Bibliography of Education* our educational literature was being added to at the rate of over one hundred volumes per year and that the rate had increased to over two hundred volumes per year by 1910.

Beginning in 1926, an annual list of books and pamphlets has been published in *School and Society*. The annual number of volumes has been as follows:

1926	—	221
1927	—	431
1928	—	434
1929	—	660
1930	—	677
1931	—	772
1932	—	842
1933	—	804
1934	—	763
1935	—	816

The increase from 221 volumes in 1926 to 842 volumes in 1932 is probably due in part to more effective means for seeking out institutional publications and books and pamphlets published privately or by companies not widely known. If the procedures employed during recent years had been followed from the beginning, the figures for the earlier years would have been materially larger. During the last four years the annual production has tended to become stabilized at about 800 volumes, which is one-fourth of the number of titles in the *Bibliography of Education* published in 1897.

One can only speculate in regard to the number of titles in a comparable list today, but, in view of the records of publications since 1897, it seems reasonable to estimate that a *Bibliography of Education* in 1936 would include more than 10,000 titles. Possibly the number of volumes would be materially larger. This estimate does not include textbooks, except in the field of education, or writings related to educational topics but not considered as belonging in this field. School reports, courses of study and other documentary materials are also not included.

Our periodical literature has increased enormously since 1897. The *Education Index* indexes 146 periodicals and the *Classified List of Educational Periodicals* for 1935 prepared by the Educational Press Association of America includes 431 titles. The list given in the *Education Index* is roughly comparable to the thirteen periodicals named by Will S. Monroe, and it is probably conservative to say that the annual production of periodical literature in the field of education is now ten

times that of 1897. The three-year accumulation of the *Education Index*, 1932-35, includes approximately 20,000 titles. Although this number includes books and pamphlets as well as articles, the number of articles relating to education in periodicals not indexed is probably equal to the number of books and pamphlets. Hence, the annual production of periodical literature in the field of education may be estimated at not less than 7,000 articles.

The present scope of our educational literature is indicated by the captions employed in classifying the 1935 list of books and pamphlets in *School and Society*, March 28, 1936.

1. History, Principles, and Philosophy of Education
2. Administration and Finance
3. Supervision
4. Reports, Surveys, Statistics, and Legislation
5. Conduct and Character Formation
6. Psychology of Childhood and Youth
7. Educational Psychology
8. Educational Tests and Measurements
9. Special Education and Exceptional Children
10. Educational Research
11. Teachers and Teaching Methods
12. Pre-school, Kindergarten, and Elementary Schools
13. Curriculum
14. Secondary Education
15. School Libraries
16. Reading, Writing, and Languages
17. Mathematics and Science
18. Geography and Social Studies
19. Art, Music, and Drama
20. Vocational, Business, and Industrial Education
21. Guidance and Personnel Service
22. Health, Physical Education, and Mental Hygiene
23. Extracurricular Activities
24. Rural Education
25. Higher Education
26. Adult Education
27. Visual and Radio Education
28. Education for the New Social Order

Most of these captions or equivalent phrases appear in the

list employed by Will S. Monroe in 1897 or as subdivisions in the table of contents, but it is evident that the field of education has expanded during the past forty years. Curriculum, educational tests and measurements, educational research, extracurricular activities, guidance and personnel service, home economics, school libraries, rural education, adult education, visual and radio education, and education for the new social order do not appear even as subdivisions in the earlier list. These new captions are indicative of the expansion of the field of education, but probably a more significant phase of the development has been the growth within such fields as school administration which existed in rudimentary form in 1897.

Will S. Monroe began the preface of his *Bibliography of Education* with the sentence, "The literature of education is now admittedly large and is growing daily." A similar statement had been made by G. Stanley Hall in the preface to his *Bibliography of Education* published in 1886. After referring to the field of "strictly pedagogic literature," Hall points out that the material is "far too great to be mastered in a lifetime of the most diligent reading." He also observes that the task of readers is made more difficult by the necessity of cultivating the "robust moral power of ignoring the great mass of petty undervitalized and worthless reading matter that is printed for them."

If these statements are accepted as descriptive of the situation during the period before 1900, stronger language is needed to describe the present situation. In addition to the enormous increase in volume, there has been a significant change in the character of our educational literature, especially that appearing in periodicals and other serial publications. Although the phrase "science of education" was employed by several writers before 1900, relatively few research studies were reported before 1910. *The Futility of the Spelling Grind* by Rice was published in 1897; *The Grading of Students* by Meyer in 1908; *Arithmetic Abilities and Some Factors Determining Them* by Stone in 1908; *Lag-*

gards in Our Schools by Ayers in 1909; *Handwriting* by Thorndike in 1910. These studies represent pioneer efforts to apply scientific methods to the study of educational problems. *The Bibliography of Research Studies in Education* for 1933-34 lists 3,500 studies reported from 117 institutions. If the studies produced by state departments, educational associations and school systems, and other agencies were added, the total would doubtless be in excess of five thousand.

Thousands of "contributions" produced by research workers are scattered through the volumes of our vast periodical literature. Others have been published as monographs or bulletins. Still others are recorded only in unpublished manuscripts. Many of these contributions deal with trivialities or attempts to prove the obvious. Others report conclusions that are not justified by the data. Except for fragmentary summaries, the reported contributions remain food for thought. They have not been evaluated, synthesized, nor interpreted. A person who attempts to become acquainted with our research literature soon finds himself mired in a morass of reports. Many of them are inadequately reported or expressed in a dialect of technical terminology and symbolism which makes comprehension difficult except for the highly trained reader. Frequently the reader accepts uncritically the stated conclusions and by so doing contributes to the perpetuation of error.

The non-research literature is scarcely less formidable. Dissatisfaction with texts available for a course as conceived in a particular teacher training institution has frequently motivated the instructor to prepare a new text which in many cases has been mainly an organization of ideas from existing texts expressed in the instructor's pedagogical vocabulary. New methods and plans have stimulated expository writings and discussions which in many cases merit the designation of "petty undervitalized and worthless reading matter." The total result is that the student soon is hopelessly lost in a tropical jungle of pedagogical jargon and, if he succeeds in comprehending this, he is likely to be so confused

by the varying points of view that he begins to wonder if the authors really understand what they are writing about.

The writings of the field of education may be classified as: I. General reference works (dictionaries and encyclopedias, annual publications such as the yearbooks of the International Institute of Teachers College, general bibliographies and indexes); II. Books, monographs and pamphlets; III. Serials (periodicals, bulletins, circulars, and the like, except such annual publications as are included in I); IV. Documents (reports, courses of study, and the like); V. Unpublished materials (theses and other manuscripts).

General reference works form an important division of the literature of a field, especially when the field is voluminous and extends over a wide range of topics. Dictionaries contribute to the development of a systematic and precise vocabulary which is a prerequisite for clear thinking. Critical study of the writings of educational philosophers, even those of high distinction, frequently results in confusion because the meanings of the terms used are not clear. Sometimes the reader suspects that the writer has failed to think clearly. An encyclopedia provides an alphabetical arrangement of syntheses of material from the other divisions of the literature. Such reference works serve as handbooks for administrators and teachers. They are important if not essential tools in the instruction of students. Instructors can refer them to an encyclopedia for a summary of the thinking and research relative to a topic. Bibliographies and indexes are essential for the economic use of books and periodical literature. If there are not adequate reference works, the literature of a field is not well balanced and such a condition reflects a limitation in the scholarship of the producers of the field.

In 1897 Will S. Monroe listed eight works by American and English authors as encyclopedias. Although only two are encyclopedias in the strict sense of the term, the list is evidence that educators of the period prior to 1897, when the amount of literature in the field was much less than our present

accumulation, attempted to meet the need for this type of reference work. Fifteen general bibliographies are also listed.

From 1898 to 1906, J. I. Wyer published in the October number of the *School Review* the compilation of the bibliographies of the preceding calendar year. He also compiled an annual bibliography of education from 1898-1907 which appeared in the *Educational Review*.¹ In these annual bibliographies he cataloged not only books but also important articles in periodicals. L. N. Wilson's *Annual Bibliographies on Child Study* (1897-1911) are comprehensive in this field. In 1903 Locke published a classified index of the *School Review* which was given the title *A Bibliography of Secondary Education*. Cubberley's *Syllabus of Lectures on the History of Education with Annotated Bibliographies* appeared in the following year. Activities along these lines culminated in 1911-13 in the publication of the *Cyclopedia of Education* by Paul Monroe.

The facts just cited justify the statement that up to about 1915 the literature of the field of education was well balanced. It is true that no dictionary of terms had appeared and that an encyclopedia was needed before the publication of Paul Monroe's *Cyclopedia of Education*. But considering the amount of literature in the field, one finds the needs of practitioners and students for general reference works were at least reasonably well provided for.

From 1913-21 educational writings were chronicled in the *Monthly Record of Educational Publications* issued by the United States Bureau of Education. Beginning in 1922, current publications were recorded in a modified form in bulletins of the United States Bureau of Education, and since 1931 this activity has been assumed by the Department of Education of the University of Chicago, which publishes lists of selected references in the *Elementary School Journal* and the *School Review*. The *Education Index*, which began in 1929, furnishes a comprehensive catalog of publications relating to educational

¹ Later, compilations of both kinds were published by United States Bureau of Education.

topics. The annual *Bibliography of Research Studies in Education*, by the United States Office of Education, lists many unpublished theses. For the period 1917-27 the titles of masters' and doctors' theses in education are available in compilations by Walter S. Monroe. The *Review of Educational Research* initiated in 1931 "summarizes," in three-year cycles, the research in the various divisions of the field of education. In addition, there are a large number of bibliographies and summaries on restricted topics.

The *Education Index*, the *Review of Educational Research* and the other lists afford helpful catalogs of educational writings, and their usefulness will be increased by the compilation of bibliographies and summaries by Walter S. Monroe and Louis Shores which is now in press. This volume lists over four thousand titles. *How to Locate Educational Information and Data*, by Carter Alexander, also will contribute to more effective use of libraries. But no dictionary or encyclopedia has been produced, and hence our educational literature today cannot be considered well balanced.

In a review of Paul Monroe's *Cyclopedia of Education* in the *Educational Review* (Volume 42, page 421), E. A. Fitzpatrick observes that "Ten years is a very long time when chronicling the progress of the comparatively new science of education." Later he says (page 423), "As education rears itself in the group of sciences, it becomes more and more difficult for even an expert in some of its phases to feel certain about many topics connected with the science of education, which his training has not fitted him to comprehend. To such experts this cyclopedia offers relief from anxious moments and wasted energies." If ten years was a "very long time" in the development of the science of education in 1911, the twenty-five years since that date, if measured in terms of the production of "research studies," is a very much longer period than is indicated by the lapse of time.

In the *Education Index* for September, 1935, a paragraph appears under the caption, "An Educational Need." After referring to the need for a dictionary of terms, the writer says,

"There is, however, another place on the shelves of our reference collections that needs to be filled. A modern, authoritative encyclopedia of education is the obvious answer. Monroe's is the only one of its kind, and since the date of the last volume so many changes have taken place that the research worker often fails to find what he wants in its otherwise admirable pages. A thorough revision, or as that is possibly a thankless task, a new encyclopedia would surely find a ready sale. Where are the enterprising scholars to undertake the work?"

The literature of a field is an index of the scholarship of the productive workers. In education the volume of literature has been large, especially during the past ten years, but the need for a dictionary of terms and an encyclopedia has not been met. This reflection upon the scholarship of American educators is emphasized when we note that in the Sixth Edition, 1936, of the *Guide to Reference Books*, Mudge lists one British publication (1921-22) and eight works in foreign languages, five of which have been published within the past ten years, and no American general reference work in the field of education since Paul Monroe's *Cyclopedia of Education* (1911-13). The significance of our failure to produce a dictionary of terms or an encyclopedia in the field of education is magnified when we examine Mudge's compilation for other fields. For example, in chemistry, Mudge lists ten reference works of the encyclopedia type in English published since 1919 and only three in foreign languages. Other fields, including law and medicine, exhibit a similar status.

An encyclopedia is essential in the development of a science of education. If the work done is not evaluated, synthesized, and interpreted at intervals, the efforts of investigators will lack co-ordination and the accumulation of findings will tend to be fragmentary. Much of it will be lost to the students in our teacher training institutions and the efforts of research workers will not be highly efficient. The investment of time and money represented by our annual production of several thousands of "research studies" would contribute much more to a

science of education if research workers were provided with a comprehensive evaluation, synthesis, and interpretation of what has been done. Until we have a general reference work that does this, our progress toward a science of education will be slow and inefficient. Furthermore, the application of the results of research in educational practice will be limited until it is possible for students and practitioners to become acquainted with what research has accomplished in the field of education.

WALTER S. MONROE,
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Dual-Professorships

A DUAL-PROFESSORSHIP, representing at the same time both academic and professional interests, in the setting of an *all-university* School of Education may prove to be the key to a solution of the conflict regarding teacher training which has long persisted between colleges of liberal arts and education.

Those who conceive this disagreement to be merely a question of who will teach methods courses seriously over-simplify the problem. In some universities, methods are taught by education professors; in others, by academic instructors. Neither scheme seems to have proved satisfactory; neither plan has solved a half dozen even more important issues. Among the latter problems of university organization for effective teacher education are: (a) the selection from among existing academic courses, those which satisfy prospective teachers' needs, rather than departmental ambitions; (b) the continuous revision of academic course content and introduction into the arts and science departments of the necessary and appropriate new courses; (c) the inculcation in students of high ideals of education as a profession, and (d) the recruitment for educational service of the strongest, rather than the weakest students.

A dual-professorship conceived merely as a position of simultaneous membership in two rival colleges would contribute little to the solution of these basic problems. But a dual-professorship can become significant, when established in a school which is all-university in character. It is in the latter setting that the position can assume a place of leadership in the solution of teacher training difficulties which have long beset university administration.

The all-institutional school established in 1934 at Syracuse University seems to have provided an organization which places the dual-professor in a position of inescapable responsibility, and into a situation where his efforts tend to be effica-

cious. The fundamental changes in the reorganization at that institution involved the substitution of an all university school for the ordinary co-ordinate College of Education; it provided for dual enrollment of students and an all-university faculty of forty-three members, including professors of education, departmental representatives from eight different colleges on temporary appointment, and eleven dual-professors.

Sophomores of eight campus colleges are admitted into this all-university school by a stringent selective system.¹ Having studied recommended courses in the lower division, students follow curricula in the upper division prescribed by the professional school. Juniors and seniors may continue a dual enrollment in their related colleges for purposes of enumeration and general student personnel services, but there are no parallel upper division curricula leading to teaching. Entrance to the profession can be attained only through selection by the professional school and through completion of its curricula. The only avenue to the education profession at Syracuse is the one all-university school.

On graduation, students are recommended for the Bachelor of Science degree by the professional school alone or for the "dual diploma and appropriate degree" jointly by the School and the College of Home Economics, Business Administration, Liberal Arts, Speech, Library Science, or Fine Arts. At commencement all students of education are presented as a single professional group in the manner traditionally followed for law and medicine.

The character and duties of the faculty, including the eleven dual-professors, were prescribed by the University trustees as follows:

Representatives of the various colleges shall be appointed annually on nomination by the Chancellor of those jointly recommended to him by the Dean of Education and the Dean of the College represented. The appointees will continue to

¹ Harry S. Ganders, "The Selection of Prospective Teachers in the Sophomore Year of the University," *Proceedings of the American Educational Research Association*, February, 1936, pp. 49-57.

hold membership in the faculties of their respective colleges, thus holding dual membership in two faculties during the period of appointment. Selection will naturally be from those most interested and active in teacher training and related school problems. It is the responsibility of this faculty to advise with, dually register, and direct study programs of individual students enrolled in the School of Education; to supervise practice teaching in the public schools; and with and through the Dean of Education, on joint responsibility, recommend to the state for teaching certificates.

Dual-professors are given permanent appointments on the staff and are assigned titles such as *Instructor in Social Studies and Education*. They teach methods and curriculum courses in the areas which they represent, and supervise the practice teaching of their majors. Most are competent to complete their teaching schedule in either academic or education courses; some teach in both. There are advantages which accrue from having dual professors complete the teaching schedule in their academic department. They should maintain their offices and retain full status of membership in their respective departments. The latter is absolutely essential. Writing, research, and addresses are expected pertaining to the teaching of the subject or area represented. The professorships are nominated for appointment by the Dean of Education, but must be approved, from the point of view of competence in the academic field, by the related deans. A nominee should not be a head of one of the University's departments. There are many advantages in making an entirely new appointment, from outside the University.

Dual-professors selected because of their *primary* interest in education and their experience in public schools, coupled with high qualifications² in academic departments, have been eminently successful in securing departmental offerings adapted to professional preparation. The teaching-major in English has been almost entirely reconstructed. It now includes needed new courses in English and in library science. A new teaching-

² The ideal is the equivalent of a doctorate in both the academic area and in education.

major in social studies includes, in proper proportion, courses in history, sociology, economics, geography, and political science. This was effected by the dual-professor working with the five departments independently and as a single group. This dual-professor in social studies and education represents the five departments on the Committee of the School of Education which selects sophomores from among candidates for this major. He it is who registers and advises students. Such developments in social studies, English, mathematics, and other fields have commended themselves to other departments. The physical and biological science departments, with the advice and counsel of a public school supervisor of science functioning in the capacity of a dual-professor, have united in the recommendation of a general science teaching-major. Here, as in the Social Studies Program, courses are included from the five major departments concerned. Two new courses, "Educational Biology" and "General Science," are being offered.

Dual-professors representing the special areas of music, art, commercial education, library science, speech, physical education, and home economics become adjusted quickly and easily in an all-university school which, like their own related colleges, is dominated by a vocational objective. Their own departments readily provide needed departmental offerings and the dual-professor's own concept of an acceptable program is broadened through the influence of the all-university school with its broader and more liberal outlook.

In conclusion: (a) the dual-professor is selected because of his *primary* interest in teacher preparation, because of his training in both academic and the professional fields, and because of his public school experience; (b) he is appointed on nomination of the Dean of Education, with the concurrence of the dean of the related college concerned; (c) his salary is budgeted on an all-university schedule; (d) his title is *Professor of — and Education*; and (e) his teaching schedule includes methods, and other courses in education, or academic courses in his field, or both education and academic subjects.

His duties include: (a) recommending to departments and the school (1) the elimination of obsolete courses, (2) the revision of existing courses, and (3) the adoption of needed new courses; (b) keeping members of both the professional school and his department aware of changing conditions in the schools, and interpreting resulting demands upon the University; (c) serving on the admission committee of the school for the selection of the most promising of his sophomore candidates; (d) redirecting the interests of rejected applicants; (e) registering and advising accepted students; (f) directing observation and supervising practice teaching in the public schools; (g) teaching methods courses; (h) representing the school at teachers' professional meetings; and (i) conducting his research and publishing in the field of school curriculum and methods.

Thus the dual-professorship is the key to success of the all-university School of Education. The fact that his highly selected, prospective teachers are permitted, through the device of dual enrollment, to retain a nominal relationship to their related colleges, obviates many obstacles to co-operation. The dual-professors and the profession they represent enjoy an enhanced prestige on the University campus.

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Do Junior College Students Know Where They Are Going?

A STRIKING answer to the question of whether or not junior college students know where they are going is found in a recent study of the records of 6,952 students in California junior colleges. In the autumn of 1929, these students named the higher educational institutions which they were planning to enter upon graduation from junior college. In 1935, after an interval of six years, information regarding these students was collected from the higher educational institutions which they expected to enter.

The study revealed that, of this group of almost seven thousand junior college students, only slightly more than a quarter actually entered the higher educational institution of their choice. Of this latter group, only half succeeded in graduating from the higher institution.

Of the students who in 1929 were junior college freshmen, slightly less than one-quarter entered the institution of their freshman choice, and only one in eight graduated from it. The record of the junior college sophomores, as might be expected, is somewhat better. Over one-third of them entered the institution of their choice and almost a quarter of them graduated from it. In both freshman and sophomore classes, however, the difference between expectation and realization has been distressingly great. A further analysis of the situation indicated by these facts has important curriculum and guidance implications.

In the autumn of 1929, in connection with the California Junior College Mental-Educational Survey, over ten thousand students in the 42 junior colleges of the state were asked whether they intended to continue their education after completing the junior college, and if so to state the name of the institution they expected to enter.¹ Over eight thousand indi-

¹This investigation was financed in part by a grant from the American Council on Education. See Walter C. Eells, "The California Junior College Mental-Educational Survey," *EDUCATIONAL RECORD*, XI (October, 1930), 281-91; for a fuller report of the original study see Walter C. Eells, "California Junior College Mental-Educational Survey," California State Department of Education, *Bulletin* No. J-3, Sacramento, California, 1930. 61 pages.

cated that they expected to enter some specific institution. Through the co-operation of the registrars, reports were received from 159 institutions of higher education in all parts of the country. These reports concerned 6,952 students who had expressed the intention of entering the 159 institutions. While the great majority of the students expected to enter one of forty-six California institutions, there were 586 who planned on continuing their education in 113 different institutions outside the state.

A brief summary of the results of this follow-up study is shown in Table I.

Freshmen vs. Sophomores: The question regarding educational intentions was asked at or near the beginning of the college year. It is to be expected, therefore, that the intentions of the freshmen, in college less than a month, would not be so stable nor reliable as those of the sophomores. In general this was the case. The stability of the educational ambitions of the sophomores was slightly more than 50 per cent greater than that of the freshmen (37.6 per cent as compared with 24.6 per cent). There were four institutions, however, in which the advantage was distinctly in favor of the freshmen.

California vs. Non-California: Over 90 per cent of the students indicated their intentions of entering higher educational institutions within the boundaries of the State of California. Their percentage of entrance was almost twice as great as that of the 586 students who expected to enter non-California institutions (25.4 per cent as compared with 14.8 per cent). The holding power of the California institutions was even stronger, relatively, because the percentage that graduated was more than twice as great as for those attending the non-California colleges. It is noteworthy that of 43 students who expected to enter four large eastern and midwestern privately controlled universities—Harvard, Columbia, Chicago, and Northwestern—only one lone individual actually realized this ambition.

Entrance and Graduation: For the entire group of 1,951 entrants considerably less than two-thirds (59.5 per cent) sur-

TABLE I.—*Realization of Educational Ambitions of California Junior College Students*

Group	Number of Institutions	Expected to Enter	Entered	Graduated	Per Cent Entered	Per Cent Graduated
<i>Total</i>						
California.....	46	6,376	1,852	1,115	29.0	17.5
Other western.....	26	330	59	24	17.9	7.3
Midwestern.....	38	117	21	12	17.9	10.3
Eastern.....	31	100	14	8	14.0	8.0
Southern.....	18	39	5	1	12.8	2.6
Totals.....	159	6,962	1,951	1,160	28.0	16.7
<i>Freshmen</i>						
California.....	...	4,693	1,193	684	25.4	14.6
Other western.....	...	238	39	13	16.4	5.5
Midwestern.....	...	77	10	7	13.0	9.1
Eastern.....	...	69	10	5	14.5	7.2
Southern.....	...	29	2	0	6.9	0.0
Totals.....	...	5,106	1,254	709	24.6	13.9
<i>Sophomores</i>						
California.....	...	1,683	659	431	39.2	25.6
Other western.....	...	92	20	11	21.7	12.0
Midwestern.....	...	40	11	5	27.5	12.5
Eastern.....	...	31	4	3	12.9	9.7
Southern.....	...	10	3	1	30.0	10.0
Totals.....	...	1,856	697	451	37.6	24.6
<i>Four Universities</i>						
University of California, Berkeley.....	...	1,947	637	418	32.7	21.5
University of California, Los Angeles.....	...	1,834	494	301	26.9	16.4
University of Southern California.....	...	897	218	75	24.3	8.4
Stanford University.....	...	732	214	132	29.2	18.0

vived to graduate from the higher institution. For the freshmen it was even lower, 56.5 per cent; for the sophomores, 64.7 per cent. For the non-California institutions the survival rate was still lower, for less than half (45.5 per cent) of the students actually entering them remained to graduation.

Professional Groups: Are the ambitions and realizations of students definitely headed toward professional schools more stable than those of the entire group? Some light is thrown on this question by the records of the 252 students who planned to enter the six state teachers colleges in California and of the 273 students who expected to enter schools of engineering, aviation, law, medicine, business, and librarianship. The entrance and survival of the group looking forward to teaching careers are very much higher than for the entire group of students studied. Over 40 per cent entered and 27 per cent graduated from the teachers colleges. The reverse is true, however, for the other professional groups. Less than 20 per cent actually entered the professional school of their choice and only 13 per cent of them completed it.

Limitations of the Study: Are the data and generalizations presented above typical? Can they be accepted with confidence as a basis for the determination of policies in 1936, in California or elsewhere? What are the limitations of the study?

The study cannot be taken as a complete investigation of the matter of student survival. How many students changed their minds and entered some other institution than the choice they indicated as junior college students is not known. The registrars could scarcely be asked to check for each institution the entire list of almost seven thousand college students. That the number probably is not great, however, is suggested by the fact that over half (54 per cent) of the entire group of students studied were planning on entering one of the two divisions of the University of California; for most of these it certainly would not have been more convenient or more economical to attend some other institution.

The most serious limitation of the study, probably, is the fact that the question of educational intention was asked in the autumn of the year 1929—the beginning of the current eco-

nomic depression. Many of these thousands of young people doubtless expected to go on with their education after completing the junior colleges in which they were then studying, and their parents fully expected to send them. But many well-made educational plans of 1929 were sadly upset by the autumn of 1930 and 1931 when these junior college students were ready to continue their studies in higher educational institutions. Doubtless the educational mortality from this cause was distinctly greater than in normal times. It is suggested by the fact, pointed out above and indicated in Table I, that such a small proportion of young people from California followed their expectations of going to the more distant and relatively more expensive eastern institutions. There is no information available to show how many of those failing to enter one of the eastern institutions attended a California college or university instead. Even if all had done so, however, it would not have made a great difference in the percentages of the entire group because the non-California "intendants" constituted but 8 per cent of the total number.

Some other indications, not reviewed here, point toward the probability that the greater part of the 72 per cent of these seven thousand young people who did not reach the institution of their 1929 choice during the subsequent six years did not enter any higher educational institution whatever.

The extent to which this condition is due to abnormal economic conditions and the extent to which it may be considered a normal educational situation unfortunately cannot be differentiated. It seems fair to assume, however, that even under the most favorable conditions we may expect a very large proportion of junior college students to fail to enter the institution of their choice for further education. In times of depression, of course, this tendency is accentuated but the depression cannot be credited with all of it, probably not even with a major part of it.

Implications of the Study: The implications of this study, even admitting fully its evident limitations, are important for college administrators and counsellors in both junior and senior colleges. Some of them may be stated briefly.

1. The junior college, far more than commonly supposed, is a terminal institution for a large proportion of the student body—at any rate this has been decidedly true in California during the years of depression.

2. Much more attention should be given to devising, perfecting, and popularizing suitable terminal curricula, both of the semi-professional type and of the civic, cultural, or social intelligence type.

3. In the educational guidance of students such facts as the above should be set before them. They should be shown that there may be some reasonable doubt of their entering the institution of their present choice. Choice of a course of study which will prepare for only a single institution is unfortunate when the chances are three to one against the student entering the institution of his choice.

4. Higher educational institutions should consider the desirability of some relaxation in the rigidity in their entrance requirements for junior college graduates. It is educationally wasteful and socially undesirable to compel students to take prescribed courses of study for transfer if more than two-thirds of them, regardless of their good intentions, fail to enter the institution for which their courses of study prepare them. A better class of students probably could be secured by higher institutions if these higher institutions would place far more emphasis on the *quality* of the work done by the junior college students, rather than on the particular *pattern* of that work.

WALTER CROSBY EELLS,
Stanford University

The Human Side of This Testing Business

The Report of the 1936 College Sophomore Testing Program

“**A** SOCIAL heritage of wilful immaturity offers perhaps the most terrific resistance to success in college.” This statement by an experienced personnel director rings with overtones that come from intimate association with students, from knowledge of them that has been earned laboriously and scientifically.

Activities in the field of personnel have for a number of years commanded the attention of the American Council on Education. The Central Committee on Personnel in 1928 made available its recommendations for the development of achievement tests and of devices and methods of record for identifying personality traits. In recent years the foreign language interests have constructed tests and have carried on extensive research in the content of language courses and in the methods of teaching. Each year L. L. and Thelma Gwinn Thurstone publish in the EDUCATIONAL RECORD an account of the widely used psychological test; and yearly, since 1932, the Committee on Testing has reported on the college sophomore and departmental programs for which the Co-operative Test Service has furnished the examination materials.

Since the interests of the Council in testing and personnel are varied and have become rather specialized, a committee to review the field and to advise on a continued course of action was appointed in the fall of 1935. The present digest brings to a focus these varied activities of the Council.

It was obvious to the Committee on Review of the Testing Movement that technical advances in the field of measurement had far outdistanced the practical applications. Very good measures of achievement in subject matter are available.

Though the repertoire of personality testing leaves much to be desired, there are ready for use commendable instruments in that field, which, in the hands of experts, are valuable for diagnosis and guidance. There appears to be no lack of interest in the giving of the tests; but what to do with the results, once they have been assembled, is shrouded in black mystery for many teachers and school authorities.

As an aid to schools and colleges desiring help in getting the most out of test data, once a program is in effect, a "Digest of Test Uses" has been prepared and is available on request.¹ This digest describes briefly the numerous ways in which colleges are making use of examination materials for research and guidance. It outlines the programs of such typical colleges as Swarthmore, Purdue, Mount Holyoke, Tusculum, Hendrix, Colorado State Teachers College, University of Virginia, and Harvard Graduate School of Education.

The impact on the colleges of testing and guidance is in no sense to be measured by the number of tests used. Of course, tests must be used on a large scale; but the majority of 311 colleges reporting on their most valuable experience with tests cited vocational guidance as first. The main purpose or justification of their testing and guidance programs is to reveal to student and adviser alike the student's educational bank account. Studies may then be chosen to round out experience in terms of the peculiar personal needs and interests of the students, each one of whom will soon step forth into a society marked by uncertainty, turmoil, and the questioning of traditional ideas and institutions.

Having selected their "clients," the colleges meet their obligations to them in part through diagnostic testing. And oftentimes the assumption that the college is always right and that the student must always conform gives way to a more scientific as well as humanitarian point of view. Ideally, standards of success are being regarded as a measure of prog-

¹ Inquiries should be addressed to Ben D. Wood, 500 West 116th Street, New York City, or F. S. Beers, University of Georgia, Athens, Georgia, or Donald J. Shank, 744 Jackson Place, Washington, D. C.

ress, not as something to add to the conceit of the already self-assured nor as a placard to remind the handicapped of their inability to keep up with the gifted.

As part of this philosophy, colleges reporting in the digest cite uses of test results in ways almost too numerous to mention; test data furnish evidence for gauging the amount of class work to be carried, for encouraging superior prospects in undertaking senior college work, for making scholarship recommendations, for determining the amount of work for self-supporting students, and for stimulating both faculty and students. These and other uses indicate that testing and guidance, far from being a mere formality, serve a much felt, practical need.

GUIDANCE IN A PRIVATE COLLEGE

The College of St. Catherine has for many years carried on a systematic program of individual guidance. A small private college for girls, St. Catherine is among the few highly selective institutions. It belongs in the upper brackets by any objective standard that can be applied. For this reason it might be thought that guidance is not needed. Quite the contrary.

Fitting education to the individual and not the conventional reverse procedure is looked upon as a major responsibility of the faculty. True, specialists play their part. The head of the mathematics department does most of the statistical work basic for records, and the psychologists assume responsibility for emotional adjustment. But specialists, teachers, and administrators alike see the problem collectively as well as individually.

Originally, interest in the philosophy and practice of guidance grew out of the fact that some teachers succeeded with certain students while others failed. This "jealousy" led to analyses of causes, and they in turn led to the demand for some means of funding the discoveries not only of teachers, friends, and companions but also of those who had in any major way influenced the student in the past. The means offered by the American Council served the purpose; it was

and has been for seven years the tool needed, sought for, and adopted to "interpret our students to ourselves and to one another." For the benefit of those interested in how the scheme works Sister Jeanne Marie has contributed the following paragraphs:

Under the supervision of psychologists data began to be recorded. Throughout the year, additional facts were entered in the convenient spaces of the personnel folders. Correspondence came to be filed. Results of examinations, exceptionally good papers, original compositions, personality rating sheets, personal requests, comments, etc., were inserted. With the personnel folders filed in steel cases centrally located and kept by a part-time clerk, the reaches of their services have gradually spread until now both students and teacher-counsellors recognize their value. Here but a brief scrutiny may find results from home influences, from high school experiences, from ability and achievement tests, from interest questionnaires, from health examinations, from summer or vocational experiences, from discipline or from change.

Filled out and enriched with significant and accurate observations, the folder offers a cumulative record of progress, as well as a composite picture of the individual student, which instructors may find it advantageous to study before recommending any change in procedure with their students. Let me demonstrate how the personnel folder helps in the guidance of (1) a so-called slow learner, (2) a problem case, and (3) a brilliant student.

At the end of the first six weeks of each year, the cases of all below-average students and failing students are investigated. The health record is first examined. Then percentile ranks are inspected in high school scholarship, in college aptitude, English, and other subjects for which placement tests have been available. Teachers' written explanations of grades are read, personality profiles studied, interests and ambitions canvassed and, in some instances, personal histories are analyzed. Every effort is made to line up assets that will favor improvement.

(1) The slow learner whose personnel folder I have before me reports her health as only fair. Her percentile rank in college aptitude is 1, yet her high school scholarship averages C+. Her highest marks in high school were in

mathematics and in science; her lowest, in English. College aptitude judged solely by single choice vocabulary tests necessarily agrees with low marks in English rather than with the high school average. Certainly the student's speech must be improved. Teachers complain that in all the mechanics of English she makes many errors. Her expressions are those of an illiterate person. What then of her parentage? Her parents are known to be good people who had little schooling, married young, and lived in an isolated community of uneducated folk. Is it not likely that speech faults had resulted far more from habitual use than from lack of ability? If this ability can be rescued, the student will stand a very much better chance in every class.

Back to the personnel folder the guide must go to find what the student has accomplished successfully, what are her interests, her ambitions, how her personality has been rated, whether she has any special talent. High grades in mathematics in high school suggests continuation in that field. Interests in music and in art offer areas of exploration. Desire to travel and liking to be with and to work with others, especially little children, signify a well-socialized attitude. A personality characterized by gentleness, generosity, evenness of disposition, and readiness to co-operate favors preparation for work with people. This student participates in sports and drives a car. She has plenty of money and spends it freely for dinners and shows and records of popular music. She keeps her friends by showering them with gifts. She resents injustice and is quick to perceive it and to compensate for it.

Armed with such information the guide turns now to the occupations in society where the individual's pattern of assets might succeed. Direction of playground activities, supervising arts and crafts in a community center, organizing orchestras for leisure time employment, accounting—these and others are presented to the student. Courses in art, social service, and child welfare come to be her choice. Registration is suited to her plan and with part of a year's additional work beyond the regular college period, she succeeded in obtaining her degree and a teacher's certificate. Of her class she was one of the very first to be placed, and she now writes frequently of taking delight in her supervision of music and art in a school in a mountain town where her education is exceptional and her generosity is appreciated. Her letters are written in acceptable English.

Guidance of a slow learner focused primarily upon assets instead of upon an obvious limitation taught the student how to help herself, kept up her spirit, and was rewarded by the development of a degree of self-dependence not at first thought possible. Not all slow learners are alike, but all of them have some assets; and the more individual their patterns, the more interesting it becomes to work with them, and the surer they may be of a unique place in society later.

(2) Problem cases show such a wide variety when studied with the help of the personnel folder that a teacher-counselor sometimes wonders what students are not problems. Experience proves, however, that most problems clear up without much difficulty. It is the persistent maladjustment that refuses to yield to improved learning conditions which marks a case as a real problem. Such is that of a young woman who in spite of more than satisfactory grades, charming manners, and demonstrated leadership must be asked not to return to college because the college cannot in justice to the other students keep her among them. The case is not frequent in a college which selects its students carefully and maintains, amidst wholesome and attractive surroundings, a high level of intellectual, social, and spiritual life. Yet it may and does sometimes occur that a young woman of promise may disappoint parents, teachers, friends, and, most of all, herself. The personnel folder of one such student shows high school completed in three years and with honors, a college program of difficult subjects carried with success, but unevenly so. Frequent change of schools, acknowledged craving for excitement, and notation of a worry that has persisted for some years invite analysis of the student's personal history. Two impressions in particular arise from this analysis: (a) astonishment at the clearness with which the student traces out cause and effect relationships in her own life, and (b) surprise at the frankness with which she pronounces her own condemnation as a spoiled, self-willed child, subject to whims and impulses.

The history is corroborated by testimonials of alternating indulgence and severity exercised by the student's mother whose many telegrams, letters, and visits kept both the daughter and the college in a fret. It is true that now, some years after her required discontinuance at college, the irregularity which finally exposed abuses too flagrantly dangerous to be dealt with in our institution, is seen to be but a continuation of constant irregularities in home life and in early school

life. It is difficult to trace where that life began to go wrong. *A social heritage of wilful immaturity offers perhaps the most terrific resistance to success in college.* And yet, with the facts before me, I understand the student who suffers from so many conflicts. I long to help her gain self-dependence. I want to follow her, encourage her, make her sure that some day her problem will yield. I do not take pride in her expulsion. I regret it and I retain responsibility for continuing guidance as long as we both live.

(3) The problem case interpreted above shows the same percentile rank in college aptitude as the brilliant student whose development I wish next to describe. If all the data gathered for the two cases and recorded in their respective personnel folders might first be reduced to comparable positions on scales of value, and then indicated on as many radii of a circle as were required, one might speculate long and intensely with both causes and outcomes of individual likenesses and differences. The two apperceptographs would overlap at a number of points: college aptitude, as has been mentioned; economic status; number of children in the family; notable accomplishments; summer experiences; and educational plans. They would vary on study conditions and hours of study, mental health, and social adjustments. In some instances, the brilliant student might even appear inferior; she is less popular, is less interested in people, and participates in fewer extracurricular activities. But irregularities among achievements, interests, and ambitions do not appear. On the senior achievement test her total score gave her a rank of 100. Her ambition when she was a freshman was to be a teacher or an author, and the ambition remained the same through college. Her personality rating shows all checks but one to the extreme right. The exception is the trait of getting others to do as she wishes. In this trait she is, however, above average. Upon one occasion she won the acclaim of her whole class by accepting the challenge of a visiting professor from abroad and by upholding the honor of American colleges. The professor had begun to quote Greek prose. Words escaped him. "I do not suppose that anyone here can go on," he said. To everyone's surprise and delight our brilliant student went on for lines and lines and lines. At present the student after a successful year of teaching foreign languages is studying in England for higher degrees. She keeps her friends and is a distinguished leader among our alumnae.

TESTING THE CURRICULUM IN A STATE UNIVERSITY

The University System of Georgia, unlike the College of St. Catherine, is not highly selective. It enrolls about 12,000 students and consists of 16 colleges widely scattered over the state. Although the use of tests for the guidance of individual students has not reached the degree of refinement illustrated at St. Catherine, testing has been extensively used for this purpose.

In Georgia the chief use to which tests have been put is administrative; that is, they have furnished the basis of research in evaluating the survey course program of junior colleges and in laying the groundwork for refining it.² Survey courses have been in effect since the fall of 1934, having grown out of an extensive study of higher education in the state. They comprise about two-thirds of the course work and are required in all state-supported colleges except for the technical and agricultural schools. They were formulated on the assumption that the majority of students will not need specialized knowledge, but that they will need and can use a general understanding of the principles and major facts of science, mathematics, history and its allies, and the humanities. Along with knowledge of facts and principles, it was assumed that the content of the courses should be of such a nature that a residual of cultural values might be expected to accrue, a range and variety of enjoyable experiences for their own sake and for the sake of the social plausibility they lend to a personality. Three criteria for evaluating the courses have been employed:

1. Extent of mastery. Has learning been carried far enough to have utility or cultural value?

2. Fitness of the courses as indicated by variability in achievement. Do some students learn very little while others already know what they are supposed to be studying?

3. Fitness of the courses as interpreted against a survey of

² Some materials for this section have been drawn from the reports of the Chancellor and of the Examiner to the Board of Regents, Division of Publications, University of Georgia, 1935-36.

what college graduates do. What kind of intellectual equipment has served them best?

Consider each of these criteria separately, first the one on the extent of mastery of the course content. The most illuminating facts come from the freshman-sophomore testing program. Co-operative tests in general science, general mathematics, world history, and English were given to all students entering Georgia state colleges in September, 1935. In May, 1936, the sophomores were given comparable co-operative tests. On the assumption that the students entering college in September, 1934, had on the average the same general ability and training as the students who entered college in September, 1935, it is possible to measure "growth" over the two-year junior college period. Gains were greatest in science and history, least in mathematics and English. This order is roughly in accord with the amount of time devoted to each study. The test on English covered vocabulary, grammar, and sentence structure; on it the achievement of entering freshmen was astonishingly low. For sophomores, while the mean in English approximated the thirtieth percentile, in science it surpassed the national median.

If it is assumed that the work required in science and history is like the work covered by curricula in general throughout the college world, then it appears from the position of the medians on the science and history tests that the Georgia students, or perhaps the middle half of them, have learned enough to be able to compete on fairly equal footing with college students in general. But in mathematics and English their achievement is so low that they are put at a serious disadvantage. What these facts should mean for curricular revision is an open question. At any rate they have a bearing on the problem, especially when the results of applying all four criteria are viewed together.

The variability in achievement of the freshmen and sophomores on the national tests brings up the second criterion of evaluating survey courses. On all of the tests the top 10 to 25 per cent showed marked superiority and the bottom 10 to

25 per cent marked inferiority. But it was thought best to supplement this information through the use of locally constructed examinations. Accordingly sampled groups of students in the physical and in the biological science courses were examined before they had taken the courses and again after the courses had been completed. Gains made were on the average large and significant. But analysis of each student in terms of increase in achievement again verified the findings in the freshman-sophomore tests.

It would appear from the facts that there are two groups of students whose needs are not being met by the survey courses, those who show little or no gain in learning and those who, even though they make significant gains, know more about the course in question before they study it than 75 per cent of the entire group know after they have completed the course.

These superior students should not be compelled by a required curriculum to spend their time on materials already familiar to them. But what courses should they study? That is a question requiring careful analysis and thinking. Beginning in the fall of 1936 several colleges will, for experimental purposes, exempt a certain number of the superior group, assign them to counsellors and plan a curriculum for them, not on preconceived notions of what they should study but on the basis of a careful, scientific inquiry into their abilities and interests. Tests and interviewing will play a large part in diagnosis and curriculum-making for this group.

The other group of students for whom the survey courses do not seem to be suited are the non-academically minded; those who cannot demonstrate enough learning to justify the assumption that they are profitably investing their energies. How much of temporary or permanent value has a student derived from a study of mathematics, for example, if at the end of a quarter he can answer but ten or a dozen questions on an examination of 150 items? Actually he cannot keep a check book, nor read a balance sheet, nor understand a simple calculation in life insurance or in economic statistics. He is

no more equipped to solve simple mathematical problems than a soldier would be to fight a battle with a popgun in his hands and a potato kettle on his head. Whatever his gains from being in college may be, they are certainly not related to readin', writin', and 'rithmetic.

It is commendable that a number of colleges have recognized the injustice of forcing survey courses or other academic doses down the throats of such indifferent scholars and that they are seriously inquiring into what can be done. The issue is between elimination and a non-academic curriculum.

The third criterion, possibly most alluring but certainly most difficult to apply, is that of relating the achievement of students to the job outlets in the community and finally to the needs of the community whether state, urban, or rural. For example, a city may employ only three engineers, one for public works, and two in a railroad office. This same city may have poorly constructed streets, inadequate sewage disposal, and unsanitary and inefficient public buildings. It may have a paint manufacturing industry fumbling along without a chemist, or a steam power plant stumbling along without a mechanical engineer.

The province of education is not only to train engineers but also to know how many ought to be trained and for what purposes; and to make corresponding attempts to learn community resources for employment and community needs. What proportion of teachers, physicians, economists, and other professional and semi-professionally trained people are actually in service and what proportion would be ideal?

A noteworthy attack on analyzing community opportunities and needs has been undertaken in Milledgeville. The tentative report is some 170 pages long, including exposition, tables, and maps.^a The marshalled evidence in the report canvasses a vast number of the facts of community life, its economics, its hygiene, its education, its government, its industries and conditions of employment. Although the interpretation of the bearing of all this will require the best that specialists can

^a W. C. Capel, Georgia State College for Women, Milledgeville, Georgia.

bring to it, particularly in discerning its relation to the junior college curriculum, nevertheless there will be plenty of room for the exercise of the ordinary garden variety of common sense.

To one who scans the report, assuming Milledgeville to be representative, it is clear that only a small percentage of college graduates in Georgia are professional people or specialists in any sense of the word. The greatest majority of them are occupied in the conduct of small business; they are managers of minor enterprises, clerks, technicians, farmers, sales people, housewives, and mothers; they are city officers and members of the state legislature. For these people the highly specialized training that is standard for the professions and allied fields seems clearly not the most desirable, useful, or valuable.

On a common sense basis the Milledgeville report would indicate that the present junior college curriculum of survey courses is, in general, more likely to be understood and used by average college graduates in Georgia than pre-professional and professional curricula. The majority of these graduates, being non-professionally employed, have little use for mathematics beyond simple arithmetic. They make no use of historical detail nor the bibliographical method; they are not chemists, nor biologists, nor classicists. And the smattering of specialized knowledge that they may have gained from their college education has evaporated from exposure to the sun of everyday reality. It is questionable, too, whether the cultural residue that supposedly ornaments their lives serves to brighten their existence more than a panoramic acquaintance with science and literature and political movements would have done.

Professor M. H. Bryan, author of "Contemporary Georgia," has commented for the present report on some of the immediate problems that confront the state. And he has pointed out some pertinent guides for education. Because his remarks support the most imminent applications of the Milledgeville survey to education, they are quoted:

The problems of Georgia, in so far as they are more severe than those of other states, seem to arise from the state's poverty. It is probably fair to guess that Georgia has been going seriously in debt on balance. Without any large, obvious tendency for this situation to be remedied by the natural forces of economic adjustment, it is necessary, unless the difficulties are to get considerably worse before they get better, to look about for policies that may be helpful. The most promising immediate development is toward a material rise in Georgia's standard of living by the home-and-community production of the goods requisite for an adequate standard of living; and increased home production might very well correct the probably adverse trade balance.

There is a good deal of evidence developing that many types of production that have in the past generation been removed from the home and community can be more cheaply carried on there. It is to be remembered that factory production not only involves the cost of fabrication but the additional costs of assembling raw materials and of selling and distributing the product. There is also considerable evidence developing that electric power will in many lines permit genuinely efficient production on a household and community basis.

Real progress in the direction of home-and-community production and in the direction of a more nearly self-sufficient agriculture will require at least two basic reforms. First of all, it will be necessary to make rapid inroads on tenancy, since tenant farmers are without the fundamental economic incentives that would bring about the far-reaching reforms of agricultural practice required by a live-at-home, self-sufficing, soil-building agriculture. Secondly, we must face the fact that the skills necessary for a widespread live-at-home practice have, during the past two generations, largely evaporated in the generality of rural communities. It will be necessary to reform the educational program all along the line with the idea of redeveloping these skills in directions in which a live-at-home policy once more appears economically feasible.

So far as the writer is personally concerned, he would like to see the whole educational curriculum, especially from the secondary schools down, overhauled in the direction of giving the mass of the population those elements of practical culture requisite to a successful life in their environment rather than the elements of literary and academic culture that seem thus far to have been irresistibly enticing to our educational administration.

THE 1936 COLLEGE SOPHOMORE PROGRAM

No test or examination is complete once its content has been decided upon. There remains the matter of norms. The inescapable obligation of those who make tests must be to see that they are extensively and representatively used. The value of the American Council Psychological Test would be materially lessened if thousands of students had not been measured on it. In 1935, for example, the norms for the college form of the test were based on the scores of more than 50,000 students. Thus, a percentile rating of 50 means that the students who made that score stand exactly in the middle, as far as ability goes, of all the thousands of students who were tested.

It is the same with other kinds of tests. They are valuable only in so far as the norms for them are representative. For example, meaning must be given the Co-operative Achievement Tests by wide use among representative student groups. Since 1933 when the first high school and college forms of the tests appeared, their use has spread in ever-widening areas, and norms on them have thus been made more significant. Between July, 1935, and May, 1936, more than 700,000 of these examinations were given to students in 46 states, the District of Columbia, and Canada. The test makers are acutely conscious of the fact that this is only a beginning; and they are equally aware of the need for extensive help from schools and colleges in refining these instruments for measuring learning.

Since norms are an integral part of tests, the American Council has sought to get them, in part, through organized programs of testing. Yearly since 1932 the colleges of the nation have been invited to give a battery of tests, selected from the list available, to entering freshmen; and from the reported results norms have been established and supplied to the participating schools. Likewise the colleges have been invited to test their sophomores on examinations of general and special knowledge. This period in a college course is a particularly critical one, since specialization for professional

work begins usually in the following year. Norms in general and special fields of learning, together with local and regional information about community needs and opportunities for specifically trained graduates constitute one of the most helpful guides for colleges, for their selection of courses and their selection of students. In this way colleges can better direct their efforts into channels that will contribute to the personal success and satisfaction of the individual student and to the general welfare of the community employing the college graduate.

In the spring of 1936, 101 colleges took part in the sophomore program, the tests being selected at the option of each institution from the list provided by the Co-operative Test Service. Favorite examinations were English, literary acquaintance, general culture, contemporary affairs, general science, general mathematics, world history, chemistry, zoology, botany, physics, French, German, Spanish, and Latin. Not all colleges used all of the tests for their sophomores, but nearly all used more than one; and several colleges gave some of the tests to all four classes. Percentile tables and graphical and tabular interpretation of the results are given in the final sections of this report. Abbreviated percentile tables have been included for liberal arts colleges, teachers colleges, and junior colleges; for students of foreign languages having had from one to four years of preparation; and for each of the college classes, freshmen, sophomore, junior, and senior. (Tables 1 to 5.)

The statement has already been made that the groups tested in any one subject, save perhaps physics, are no more than approximately representative of all college sophomores. But with the limitations of sampling in mind, it may be well to consider the significance of the results as far as they can be interpreted with reasonable caution.

In recent years the colleges have been charged with many sins. They have been damned for clinging to units and credits as a measure of achievement; for assuming that time spent in courses of study brings proportionate dividends in

TABLE 1.—National percentile scales for the tests given in April and May, 1936, to college sophomores. The scales are based upon returns from all sophomores tested, regardless of curricular division or type of institution, for whom reports were received up to June 9, 1936. These tables show true percentiles, calculated from the distributions of scores.

Each score in each column shows the upper score limit of the percentile indicated at the extreme left and right of the line. For example, the bottom entry in the history and social studies column shows that all scores of 19 or below have a percentile value of 1; all scores from 20 to 23, inclusive, have a percentile value of 2; and all scores above 163 have a percentile value of 100. Many colleges used different combinations of tests, hence the numbers of cases and of colleges vary from column to column. The mean and sigma of the scores and the number of colleges involved in each column are shown at the top of each column.

	Hist. & S. S.	For. Lit.	Fine Arts	Total Gen. Cult.	Eng. Usage	Spell.	Vocab.	Total Eng. lish	Lit. Acq.	
No. of Cases.....	4,951	4,951	4,951	4,951	5,026	5,026	5,026	5,026	4,044	
No. of Colleges.....	56	56	56	56	58	58	58	58	53	
Mean.....	76.5	38.6	35.5	150.6	68.1	34.1	50.4	152.6	60.3	
Sigma.....	32.3	23.8	23.7	68.4	16.9	13.0	17.4	40.7	26.3	
Percentiles										Per- centiles
100	227	219	153	580	105	55	98	249	170	100
99	168	116	109	358	98	54	87	228	131	99
98	154	102	98	325	96	53	85	223	121	98
97	147	94	92	307	95	53	83	219	117	97
96	142	88	87	291	93	51	81	217	112	96
95	136	83	82	278	93	51	79	214	108	95
94	132	79	78	270	92	50	78	212	105	94
93	128	76	75	263	91	50	77	209	103	93
92	125	73	72	255	90	50	76	208	100	92
91	123	71	70	248	90	50	75	206	98	91
90	120	69	68	241	89	49	74	205	96	90
88	116	65	64	229	88	49	72	201	92	88
86	112	62	60	221	87	48	71	198	89	86
84	109	60	57	214	85	48	69	196	87	84
82	106	57	55	208	84	47	68	193	84	82
80	102	55	53	201	83	46	66	191	82	80
75	95	50	48	188	81	45	63	184	77	75
70	90	46	44	176	79	44	60	178	72	70
65	85	43	40	166	77	42	57	172	68	65
60	81	40	37	156	75	40	55	166	64	60
55	76	37	34	147	72	38	52	161	61	55
50	72	34	31	139	70	37	50	156	57	50
45	69	32	29	132	68	35	48	150	54	45
40	65	29	26	124	65	32	45	145	51	40
35	61	27	23	117	62	30	43	137	48	35
30	57	24	21	110	59	27	40	130	44	30
25	53	22	18	101	56	25	38	124	41	25
20	48	20	16	93	53	22	35	116	38	20
18	47	18	14	90	51	20	34	112	36	18
16	45	17	13	86	49	19	32	109	34	16
14	43	16	12	83	48	18	31	105	32	14
12	41	15	11	79	46	16	29	101	30	12
10	39	13	9	74	44	15	28	97	28	10
9	37	12	9	72	43	14	26	94	27	9
8	36	12	8	70	42	13	25	91	26	8
7	35	11	7	67	41	12	24	87	25	7
6	33	10	6	63	40	11	23	84	23	6
5	31	9	5	60	38	10	22	80	22	5
4	29	8	4	56	36	9	20	76	20	4
3	27	6	3	51	34	8	19	72	18	3
2	23	5	2	46	31	6	16	65	16	2
1	19	2	1	40	27	4	13	57	13	1

TABLE I.—*Continued*

	CONTEMPORARY AFFAIRS			Gen. Sci.	Gen. Math.	World History	
	Part I	Part II	Total				
No. of Cases.....	3,322	3,322	3,322	5,897	676	1,040	
No. of Colleges.....	39	39	39	52	21	18	
Mean.....	61.8	49.1	111.0	55.4	53.0	38.3	
Sigma.....	33.1	29.4	54.0	27.1	28.2	22.5	
Percentiles							Percentiles
100	203	184	364	194	132	135	100
99	159	139	262	137	125	103	99
98	143	128	244	127	118	95	98
97	136	120	234	120	114	90	97
96	131	113	225	115	109	85	96
95	126	108	217	110	107	81	95
94	122	103	207	105	104	78	94
93	118	99	201	102	102	76	93
92	114	95	195	98	99	73	92
91	112	92	191	96	97	71	91
90	109	89	187	93	94	69	90
88	104	85	179	88	90	65	88
86	100	81	171	85	87	62	86
84	96	77	164	82	85	59	84
82	91	74	159	79	82	57	82
80	89	71	153	76	79	55	80
75	81	64	141	70	72	51	75
70	74	59	132	64	65	47	70
65	69	54	123	60	60	44	65
60	64	51	116	57	56	41	60
55	60	47	109	53	51	38	55
50	56	43	102	50	48	35	50
45	52	40	96	47	45	32	45
40	48	37	90	44	41	29	40
35	44	34	84	42	38	27	35
30	41	31	78	39	35	24	30
25	37	28	71	36	31	21	25
20	33	25	65	33	27	18	20
18	31	23	62	32	26	17	18
16	30	22	59	30	25	16	16
14	28	20	56	29	24	15	14
12	26	19	53	27	22	14	12
10	25	17	50	26	20	12	10
9	24	16	47	25	19	11	9
8	22	15	45	24	18	11	8
7	21	14	43	23	17	10	7
6	20	13	41	22	16	9	6
5	19	12	40	20	15	8	5
4	17	10	36	19	14	7	4
3	15	9	33	17	12	6	3
2	13	7	28	15	11	5	2
1	10	4	21	11	7	2	1

learning. Many unfriendly critics of education, on too hasty and too prejudiced examination of the facts, have concluded that in general freshmen know more than seniors and that worth while learning and the ability to use it are inversely related to years of study in academic circles. Some educa-

TABLE 2.—College sophomore percentiles for indicated tests and types of colleges. This table, while abbreviated, is parallel to Table 1 and is to be read in the same way.

LIBERAL ARTS COLLEGES

	General Culture	Total English	Literary Acquaint- ance	Contem- porary Affairs	General Science	
No. of Colleges.	37	39	33	23	34	
No. of Cases...	3,805	3,840	2,988	1,894	4,270	
Mean.....	156.2	152.3	62.6	112.8	56.0	
Sigma.....	70.7	40.7	26.6	51.4	28.1	
Percentiles						Percentiles
100	581	249	170	334	194	100
98	337	224	124	244	129	98
93	272	210	106	196	105	93
90	253	205	99	183	95	90
84	222	196	89	162	83	84
80	209	191	85	152	78	80
75	195	184	79	142	71	75
70	183	177	75	133	66	70
60	162	166	66	119	57	60
50	145	155	59	107	51	50
40	129	143	53	94	44	40
30	113	130	46	83	39	30
25	105	124	43	76	36	25
20	96	116	40	68	33	20
16	89	109	37	63	30	16
10	75	96	31	53	25	10
7	70	87	28	46	22	7
3	54	71	21	35	16	3
1	41	56	16	21	10	1

TEACHERS COLLEGES

	5	6	6	6	6	
No. of Colleges.	5	6	6	6	6	
No. of Cases...	717	909	769	1,074	1,070	
Mean.....	129.3	154.8	52.9	107.8	51.0	
Sigma.....	55.7	40.6	24.8	59.2	22.5	
Percentiles						Percentiles
100	327	240	130	329	163	100
98	275	224	109	248	112	98
93	220	209	94	213	87	93
90	206	205	88	198	80	90
84	184	197	77	172	71	84
80	173	193	73	160	66	80
75	162	187	69	143	62	75
70	151	182	65	129	58	70
60	135	170	58	108	53	60
50	121	159	52	94	48	50
40	109	147	44	81	43	40
30	96	132	38	69	38	30
25	90	124	34	63	35	25
20	83	116	29	57	33	20
16	76	110	27	53	31	16
10	64	101	22	44	27	10
7	57	89	19	39	24	7
3	45	74	13	28	19	3
1	34	58	9	18	13	1

TABLE 2.—*Continued*

JUNIOR COLLEGES

	General Culture	Total English	Literary Acquaintance	Contemporary Affairs	General Science	
No. of Colleges.	14	13	14	10	12	
No. of Cases...	429	277	287	354	558	
Mean.....	137.0	149.2	56.1	110.8	59.8	
Sigma.....	56.8	40.6	22.2	51.0	27.2	
Percentiles						Percentiles
100	435	240	133	364	158	100
98	268	219	109	239	124	98
93	223	208	88	192	105	93
90	213	201	85	181	99	90
84	192	191	78	158	87	84
80	182	184	73	149	82	80
75	169	178	70	135	77	75
70	158	174	67	126	71	70
60	142	162	61	112	62	60
50	132	153	54	103	55	50
40	120	143	48	92	49	40
30	104	128	43	81	43	30
25	96	122	41	75	39	25
20	90	113	39	71	36	20
16	83	105	34	66	34	16
10	71	89	30	56	30	10
7	64	83	24	47	27	7
3	49	70	16	36	21	3
1	30	52	12	28	15	1

tors have gone so far as to say, "Well, let's close up shop. We're making progress backwards."

The facts are not nearly so discouraging as critics and pessimists would have us believe. As far as present data are representative of the truth, freshmen do not know more than seniors; and they do not have better ability to apply what they know. Anyone who reads the percentile table for the colleges that tested their students from the freshman to the senior class can readily see that the averages for successive years in college show distinct progression upwards.

This average improvement is not only true for tests in general culture, English, literary acquaintance and contemporary affairs; it is also true for the foreign languages, French, German, Spanish, and Latin. (Tables 6 and 7.)

TABLE 3.—Foreign language test percentiles for indicated credit groups, including students from all four college classes. This table is to be read in the same way as Table 1. In view of the small numbers of cases, the percentiles are here given in abbreviated form.

	FRENCH				GERMAN			SPANISH			LATIN			
Years of College Credit	1	2	3	4+	1	2	3	1	2	3+	1+2	3	4+	
No. of Cases.....	307	473	237	40	171	229	39	85	118	61	74	81	109	
No. of Colleges.....	22	29	18	11	16	19	9	9	11	7	21	13	14	
Mean.....	78	120	139	178	63	80	144	64	86	130	103	142	152	
Sigma.....	46.9	52.3	47.9	55.3	37.5	45.3	60.6	44.5	48.1	66.2	54.8	55.9	58.5	
Percentiles													Per- centiles	
100	243	259	248	267	230	209	263	204	251	277	232	289	287	
98	189	236	232	266	144	188	261	200	203	276	222	261	267	
93	158	206	212	255	126	163	236	140	171	219	194	222	243	
90	145	194	201	250	117	154	227	127	165	214	179	209	225	
84	123	174	189	236	101	127	206	108	138	202	170	196	212	
80	115	165	184	227	94	115	201	95	130	197	156	189	200	
75	106	157	177	222	86	102	186	88	113	179	146	182	193	
70	99	146	168	212	78	94	176	79	94	175	132	177	186	
60	83	130	155	200	68	80	162	67	86	149	115	154	168	
50	72	117	140	186	57	69	146	55	77	134	96	145	152	
40	62	101	126	170	49	64	128	47	70	102	77	123	145	
30	49	88	108	157	41	52	101	33	58	74	70	108	127	
25	42	81	103	140	37	48	96	29	50	70	56	100	106	
20	36	71	91	117	31	43	82	26	46	63	49	91	94	
16	31	65	84	112	25	36	78	19	42	58	46	79	85	
10	23	55	76	100	19	28	69	13	32	48	38	63	68	
7	18	48	70	97	16	25	64	10	27	45	32	58	65	
3	9	37	57	81	9	18	60	6	20	27	22	37	43	
1	3	24	45	37	5	10	6	4	16	23	13	32	35	

The facts that have caused confusion and grave misunderstanding are not concerned with average improvement for increasing years of study but with the variable nature of this improvement. On the average, students who study French for four years know more about the language each succeeding year, but many individual students do not measure up to the average. In spite of this fact, they are allowed, and often times are encouraged, to keep on trying, even after they have reached the limit of their ability to learn. The presence of such students in classes depresses average achievement and gives rise to just criticism from those who expect education to produce results, and not merely to mark time.

Again, some critics of college education would have us believe that all students of little or no ability are concentrated in a few colleges and that our future Edisons and Einsteins are being nurtured within the walls of a few highly selective institutions. Such is not the truth. Moreover, this point of view is a breeder of intellectual snobs, a most offensive cult.

TABLE 4.—Freshman, sophomore, junior, and senior class percentiles based on all returns from six colleges that gave the tests to all four classes.

	TOTAL GENERAL CULTURE				TOTAL ENGLISH				LITERARY ACQUAINTANCE				CONTEMPORARY AFFAIRS			
	604 Fr.	397 So.	298 Jr.	310 Sr.	427 Fr.	267 So.	197 Jr.	205 Sr.	426 Fr.	268 So.	195 Jr.	206 Sr.	485 Fr.	302 So.	208 Jr.	181 Sr.
No. of Cases.	124.5	147.4	181.2	176.8	132.3	150.8	159.8	163.1	48.4	55.3	65.8	62.9	107.8	128.7	139.3	138.7
Mean.....	56.1	70.2	82.9	75.3	39.1	39.1	39.2	35.4	21.6	24.9	27.9	27.0	40.8	47.1	51.8	42.8
Sigma.....																
Class.....																
Percentiles																
100	308	406	504	520	233	242	244	242	124	135	173	134	243	266	320	246
98	268	340	420	357	218	221	236	233	110	117	136	119	209	249	259	238
93	226	272	321	300	196	207	215	216	82	99	115	110	169	206	224	214
90	206	241	294	277	187	203	209	209	76	91	101	104	159	194	213	199
84	178	212	260	251	173	193	199	199	70	79	92	92	148	176	193	185
80	168	199	243	234	167	186	196	194	65	75	87	86	140	165	182	176
75	155	186	221	218	160	179	192	188	62	71	82	83	133	156	172	166
70	144	170	206	205	153	174	187	183	57	65	76	77	127	148	164	157
60	128	147	186	184	140	165	172	174	50	58	69	68	155	135	145	143
50	113	134	158	165	127	154	159	165	44	50	62	58	104	125	130	133
40	101	118	146	145	119	140	149	155	40	46	55	50	93	113	120	122
30	89	104	130	130	108	127	136	143	35	41	49	44	82	98	107	112
25	84	96	123	122	104	122	129	138	33	38	46	41	77	93	100	106
20	78	90	113	115	99	113	122	132	31	35	41	39	73	87	94	99
16	72	81	105	110	94	107	116	126	29	32	38	36	69	82	89	94
10	63	72	94	90	84	100	107	115	25	26	33	32	60	72	79	88
7	57	66	87	82	78	94	102	111	22	23	31	27	53	65	71	84
3	45	54	74	67	66	75	91	90	19	17	26	23	41	55	61	77
1	35	43	59	50	48	58	69	83	11	14	19	21	31	47	52	62

TABLE 5.—Percentile tables for chemistry, zoology, and botany tests. Because of the small numbers of cases, the percentiles are presented in abbreviated form. The tests were given at the end of the college year to students in elementary college courses in these sciences.

	CHEMISTRY TEST I			CHEMISTRY TEST II			CHEMISTRY TEST C				
	Secs. 1 & 2	Sec. 3	Total Score	Sec. 1	Sec. 2	Total Score	Sec. 1	Sec. 2	Sec. 3	Total Score	
No. of Colleges.....	13	13	13	7	7	7	39	39	39	39	
No. of Cases.....	454	454	454	384	384	384	1,465	1,465	1,465	1,465	
Mean.....	141.7	69.1	210.5	84.7	23.7	108.5	58.5	26.6	18.1	103.3	
Sigma.....	45.7	27.9	66.5	21.6	11.4	28.4	21.5	12.4	11.1	40.0	
Percentiles											Per- centiles
100	283	140	412	130	60	188	130	62	62	245	100
98	237	124	354	118	49	158	108	53	45	199	98
93	215	113	316	110	43	149	94	46	36	168	93
90	207	109	302	109	40	145	88	44	33	159	90
84	189	102	278	106	35	138	80	40	29	143	84
80	180	96	270	105	33	135	76	38	27	136	80
75	172	90	255	103	31	131	72	35	25	129	75
70	165	83	241	101	29	127	68	33	23	122	70
60	149	74	226	95	26	119	62	29	20	109	60
50	138	67	206	90	23	111	57	26	17	98	50
40	126	60	189	81	20	102	52	23	14	90	40
30	116	52	169	73	17	92	46	20	11	80	30
25	110	48	160	68	15	87	44	18	10	75	25
20	100	44	151	64	14	82	40	16	8	69	20
16	95	40	144	61	12	78	37	14	7	64	16
10	85	34	127	53	10	71	32	11	4	55	10
7	79	30	117	48	7	64	28	9	2	48	7
3	59	22	94	41	5	55	22	5	1	36	3
1	52	11	82	32	1	47	15	1	0	30	1

	ZOOLOGY TEST C				BOTANY TEST C				
	Section 1	Section 2	Section 3	Total Score	Section 1	Section 2	Section 3	Total Score	
No. of Colleges....	21	21	21	21	11	11	11	11	
No. of Cases.....	759	759	759	759	284	284	284	284	
Mean.....	56.1	27.0	16.9	100.1	33.6	19.1	21.6	73.4	
Sigma.....	21.2	13.7	11.1	42.1	16.6	13.8	14.1	39.6	
Percentiles									Per- centiles
100	129	58	57	233	90	56	78	205	100
98	100	51	43	187	73	50	55	170	98
93	91	47	35	162	62	42	45	136	93
90	85	45	32	158	56	39	41	127	90
84	78	42	29	144	50	34	36	115	84
80	74	40	27	138	48	32	33	108	80
75	71	38	24	131	45	30	30	101	75
70	68	36	22	124	42	27	28	93	70
60	61	31	19	109	36	21	22	80	60
50	55	27	16	98	31	18	19	65	50
40	49	24	12	87	26	13	16	54	40
30	43	19	10	74	22	9	13	46	30
25	39	17	8	68	21	8	12	42	25
20	37	14	7	61	19	5	10	38	20
16	35	12	6	55	17	4	9	34	16
10	30	7	3	45	14	2	5	29	10
7	27	5	2	41	12	1	4	26	7
3	19	1	1	28	10	0	2	19	3
1	13	0	0	16	5	0	0	11	1

TABLE 6.—Distribution of college sophomore averages. The sophomore means of all colleges for which data were available are here distributed in terms of national sophomore percentiles. The percentile scale has been altered, so that the intervals correspond approximately to a sigma scale. The vertical distances are therefore roughly comparable.

Natl. Soph. Per- centiles	Age	Hist. & S. S.	For. Lit.	Fine Arts	Total Gen. Cult.	Eng. Usage	Spell.	Voc.	Total Eng.	Lit. Acq.	CONTEMPORARY AFFAIRS			Gen. Sci.	Gen. Math.	Natl. Soph. Per- centiles
											I	II	Total			
98-100	1															98-100
96-97				1		1						1				96-97
94-95				1									1			94-95
92-93												1				92-93
88-91	1		1	1	1						1	1	1	1	1	88-91
84-87																84-87
79-83	2	2	7	2	3	1	1	3	1	1	3	2	1	3	4	79-83
73-78	1		2	5	7	2	1	3	2	4	3	5	4	3	1	73-78
66-72	4	7	5	4	10	3	1	2	4	10	4	1	3	5	3	66-72
58-65	8	9	8	5	11	6	1	7	5	9	6	3	9	11	3	58-65
50-57	7	13	13	7	14	7	15	12	11	6	7	8	1	10	3	50-57
42-49	9	13	11	16	5	11	12	11	8	11	5	3	6	8	4	42-49
34-41	9	8	4	9	5	14	20	19	19	6	3	5	7	7		34-41
27-33	6	1	1	4		9	5	3	5	5	6	5	2	3	2	27-33
21-26	7	3	3	1		3	2	1	2	1	1	2	3			21-26
16-20	2		1				1		1				1			16-20
12-15	8															12-15
8-11	2					1						2		1		8-11
6-7																6-7
4-5																4-5
2-3																2-3
1																1
Total.....	67	56	56	56	56	58	58	58	58	53	39	39	39	52	21	

TABLE 7.—Distributions of college averages on the foreign language tests for indicated college credit groups. In computing college credits, one high school year was considered equivalent to one-half college year of credit. The numbers of cases on which the college averages are based range from 1 to 116; if all averages based on fewer than 5, or even 10, cases had been excluded, the relations indicated in this table would not be noticeably different.

The table is to be read as follows: In the 1 to 1½ year column for French, one college secured an average score between 140 and 150; two colleges secured averages between 120 and 130; and so on to the bottom of the column where it appears that three colleges secured averages of between 30 and 40 score points.

The vertical brackets at the right of each distribution indicate the 25th, 50th, and 75th percentiles from Table 3.

Score	FRENCH				GERMAN			SPANISH			LATIN				Score		
	Years of College Credit.																
	1-1½	2-2½	3-3½	4+	1-1½	2-2½	3-3½	1-1½	2-2½	3-3½	1-1½	2-2½	3-3½	4+			
260														2	260		
250														1	250		
240				1											240		
230					1										230		
220				2			1			1				1	220		
210				1											210		
200						1				1			3	1	200		
190		1		2								1	1	3	190		
180			1												180		
170		1	2				1					2	1	1	170		
160		3	4	1			1		1			1	1	1	160		
150		3	2			1						1	1	1	150		
140	1	3	2	2	1		1		1	1	1	1	2	1	140		
130		2	2	1	2								1		130		
120	2	4		3					1			1		2	120		
110	1	2	3				1			1	1	1			110		
100				1			1		1		1	1		1	100		
90		2	3				3					1			90		
80	1	2			1		4		1		2				80		
70	4		1		1	3	3	2	2	1	1		2		70		
60	1	2		1			1			3				1	60		
50	4	2	1		1		1		1			2			50		
40	3				4		2		2			3		1	40		
30					1		1								30		
20															20		
10															10		
0															0		
Total Colleges	22	29	18	11	16	19	9	9	11	7	7	14	13	14			

The facts which erroneously give rise to such criticisms reside in tables of college averages. Inspection of sophomore averages on general examinations, and tests in foreign languages can be very misleading. These averages obscure the tremendous variability in achievement that goes to make them up. In virtually every college and every college class there are unusually brilliant students and unusually dim-witted ones, academically speaking. The range of ability actually extends, sometimes, from border line feeble-mindedness on the one hand to genius on the other. Averages, therefore, have a

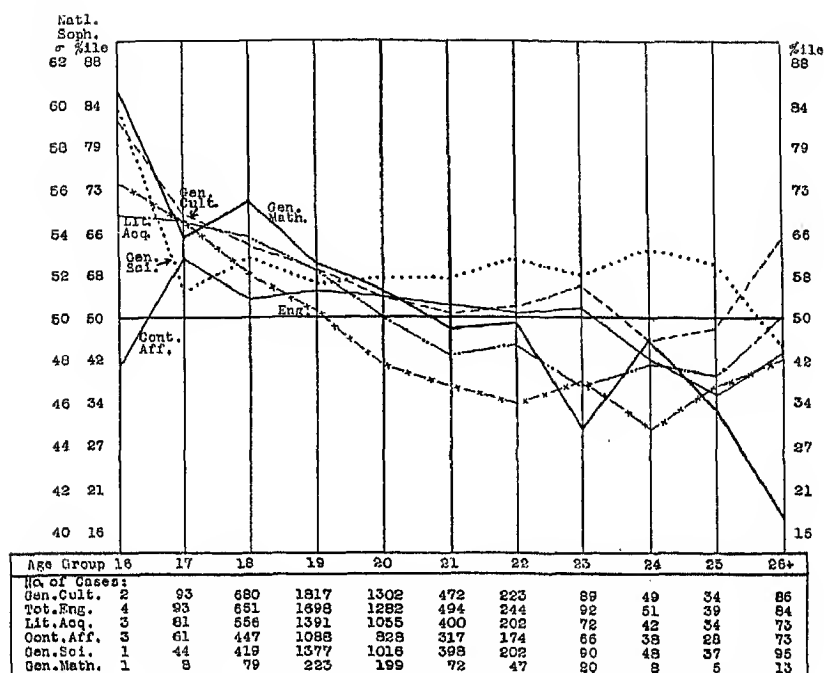


CHART I.—Comparison of age groups. Means of chronological age groups of sophomores on indicated variables, graphed in terms of national sophomore percentiles. Since the national distributions show varying degrees of positive and negative skewness, the means as here graphed appear too high for some variables and too low for others. However, it is the direction of the lines, rather than their height on the chart, that is significant here.

limited significance. Business men would be less inclined to judge a college on its average scores in English, mathematics, or physics than on evidence that students are continued in courses only so long as they show improvement. And they would doubtless look with favor on colleges that kept "cost accounting" records in the fields of learning.

In foreign languages, for example, it is apparent from the overlapping of college averages that many students with only a year to a year and a half of course work know more about the language they are studying than others who have had four years or more of study. It is this variability in achievement when amount of study time is kept constant that has given rise to the severest strictures against the value of college

education. The point of the criticism would be materially blunted if "time" as a unit of measure were given up altogether and relative degree of achievement on an understandable scale were substituted.

The fact that there is a very low degree of relationship between age and achievement lends edge to this argument. (Chart I.) Analysis of test results for college sophomores discloses a downward trend for age groups ranging between 16 and 26 years. True enough, the 16 year olds seem not to be as conversant with contemporary affairs as some of the later age groups, but their superiority is unquestioned in the tests on the mechanics of English, literary acquaintance, general science, and general culture. This superiority is not consistently greater than the achievements of other age groups, since at approximately age 22, there is a general fanning out of the curves. If specialized interests account for these divergences, they have not been powerful enough to bring the older students nearer than within bowing distance of the youngsters. It is very likely that these 16 year olds are in college because they have been blessed with a peculiar kind and degree of natural endowment; and natural endowment seems to be but little affected by the dignity of years. Admittedly, the tests measure intellectual achievement and not *savoir faire*. Tests of the latter commodity are much needed.

Scores made by individual students, regardless of age, are one of the most important factors contributing to individual diagnosis and guidance. The tests used and the various scales of values or norms available for them will place the student in his relative position in the standard groups. In some colleges a student might achieve the 80th percentile on local norms but only the 15th percentile on national norms; or at another college, the reverse might hold true. But to know the ranking, both local and national, is of inestimable help to the adviser for educational and vocational guidance.

The individual scores of students are especially important for the counsellor or adviser. Average college scores, carefully interpreted, can be uniquely important to the administra-

tor. Correlations between pairs of college averages, made possible by the fact that many colleges take part in the sophomore program annually, suggest that levels of achievement in colleges stay fairly constant. (Table 8.) For example, if a college gives the sophomore tests in any given year, the chances are good that the average score for the next sophomore class will be about the same. With the help of a statistician college administrators can learn considerable about the mental characteristics of their students, how they compare in central tendency and variability with other students, and how far mastery of a subject has been carried by groups. Thus far norms for professional goal groups have not been adequately determined, but such information as there is suggests the presence of important differences. (Chart II.) Differences between such groups should be administratively significant for the selection of students and for their guidance, once they are found to be stable.

Perhaps nationally used tests are used most extensively for individual guidance. But their value for curriculum building cannot be denied. Tests cannot and should not be used in themselves to shape a curriculum, or to give it rigidity. They can be used to evaluate its effectiveness and to show, at least, what not to do. For example, certain subjects like the foreign languages, mathematics, and physics have little value, aside from a doubtful disciplinary one, unless they are thoroughly mastered. A student who reads German at the rate of an inch an hour, and that badly, or who fumbles helplessly with equations despite several high school and college years of training, has been studying the wrong thing for him. And if a considerable percentage of his classmates are his brothers under the skin, something is wrong with the curriculum.

In a very real sense the junior college movement and the recent mushroom growth of the so-called survey courses are an admission that the traditional curriculum is hopelessly inadequate for large numbers of college students. The reforms are admirable in their objectives, for the most part. They will be equally admirable in their outcome if, all along

TABLE 8.—Correlations between 1935 and 1936 sophomore averages of colleges that participated in both programs, with corresponding correlations for 1934-35, 1933-34, and 1932-33. Data on some of the variables were not available for all colleges, hence the numbers of pairs of averages vary from test to test.

Variable	N (No. of Pairs of College Averages)	Correlations 1935-36	CORRESPONDING CORRELATIONS		
			1934-35	1933-34	1932-33
Chronological Age.....	45	0.81	0.75	0.85	0.82
History and Social Studies	40	0.61	0.80	0.83	0.65
Foreign Literature.....	40	0.84	0.90	0.91	0.54
Fine Arts.....	40	0.89	0.90	0.90	0.68
Total General Culture....	40	0.81	0.88	0.90	
Usage.....	41	0.85	0.81	0.76	
Spelling.....	41	0.83	0.77	0.74	
Vocabulary.....	41	0.79	0.88	0.77	
Total English.....	41	0.88	0.88	0.79	0.68
Literary Acquaintance....	35	0.80	0.69	0.74	
Contemporary Affairs....	23	0.92	0.71		

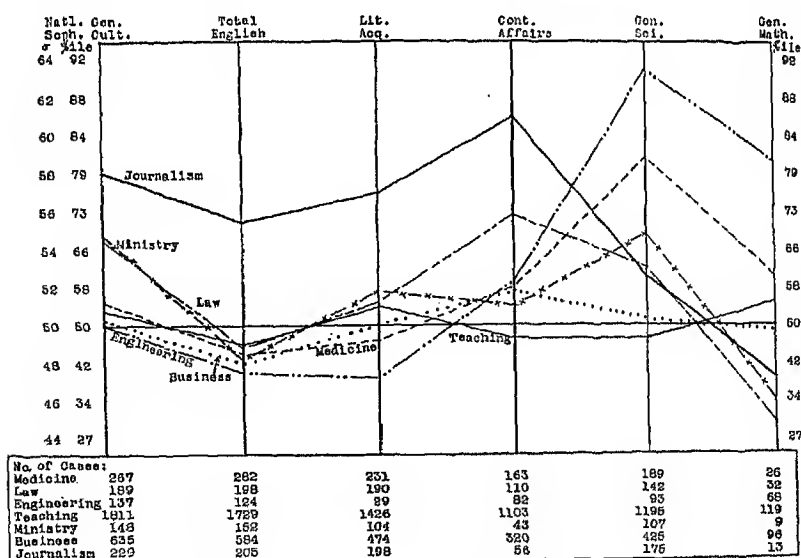


CHART II.—Comparison of professional goal groups. Graphs of means on indicated tests of college sophomores who reported their professional goals. The averages are graphed in terms of national sophomore percentiles.

the line, objectives and results are subjected to scientific scrutiny, and if the indications of scientific analysis are put into effect. Such a scientific approach to setting up educational values depends on extensive, large-scale co-operation among educators. And various kinds of testing programs will be instrumental in furnishing the materials for setting standards. The sophomore program, as one of the early spurts of interest in this direction, has been of greatest value perhaps in stimulating sister programs. Already numerous state organizations have programs well under way or in an incipient stage. Several have come into being since Dean McConn made his report.⁴

In Maine, Texas, and South Carolina, for example, co-operative programs are focusing the interest of high schools and colleges. Pharmacy District No. 2, with 17 colleges, and the Eastern States Teachers College Association, with many more, are directing their efforts toward five-year programs designed to shed light on the question of selection and standards in the respective professional groups. At present the Committee on Standards of the Southern Accrediting Association has under advisement a plan for adding a testing program to the procedures already in use for accreditation.

Whether testing programs are new born or have reached a more advanced stage of maturation as in Minnesota, Iowa, and Kentucky, their importance does not reside in the tests themselves nor in the number and variety used. They are primarily significant because they are gradually doing for *examining* what has already been accomplished for *examinations*. The measurement and guidance function, widespread and important as it is, has nevertheless been a stronghold of educational anarchy in which each examiner and counsellor has gone his own way flying the banner of "every man a king." Co-operative effort has injected a genuinely democratic element into the scope and the content of examinations; and co-operative programs of using test results are lending

⁴Max McConn, "Educational Guidance Is Now Possible," EDUCATIONAL RECORD, October, 1933, p. 475.

educational and social significance to the meaning of guidance and curriculum building. This is their real contribution.

SCIENCE TESTING PROGRAMS IN COLLEGE

That examining and guidance are conceived to be democratic rather than individualistic functions is attested by the fact that several of the national scientific associations have standing committees at work on tests and test uses. Co-operative relations among representatives from the fields of mathematics, chemistry, zoology, and physics and between these groups and the American Council have for some time been established. Except in the case of physics the programs are restricted to tentative, experimental work; but they have been extended and promise continued development. Within a reasonable length of time they should be as extensive as the physics program has become under the direction of the American Association of Physics Teachers.

The fact that 227 college departments of physics co-operated in the program for the past year, and the fact that the program has been operating on an equally large scale for three years make it of particular interest. The democratic nature of the project is one of the most promising aspects of American education. In the major divisions of elementary physics, the committee on test content made a composite of fifteen textbooks and drew the materials for the examinations from the common content thus revealed. The *American Physics Teacher*, September Supplement, 1936, carries a detailed account of the program.

A most significant feature of the work is that two forms of the tests have been released each year, and departments have been invited to use one before students begin the study of physics and the other after they have completed the course. Analysis of the results shows that on the average students having had high school physics know more to begin with and make greater gains than students who start their study of physics in college. Such facts are a direct answer to those who regard the teaching of physics as a waste of time and who

erroneously believe that teaching and extent of course work have no relation to learning. The large-scale teaching of physics is thoroughly justified if an average amount of gain in learning is the criterion. Students do learn, and they learn a lot.

But not all of them. Here is the critical issue for education. Some students with both high school and college credits in their account have actually accumulated nothing but the credits; they have a set of inflated assets with no substance behind them. And yet they have been permitted to continue a study that utterly baffles their power to learn. This is serious and unpardonable waste. On the other hand, some few students, with or without high school credits in their lockers, demonstrate a greater knowledge of the subject before they study it in college than the majority have after study. Such students, forced into the child's play of learning what they already know, easily get habits of laziness and develop attitudes of contempt. This, again, is educational waste.

The physics program as a collective and democratic movement is helping to set standards of achievement. It is furnishing the scale whereby the schools can honestly look toward judging the effectiveness of their teaching and curricular programs. No teacher single-handed can do this. Amount and extent and validity of learning cannot be measured in the absolute. We have made the mistake of believing that they can and that two equally able teachers in different colleges judge the performance of their respective classes of thirty students on the same standards. Any standard that will "stay put," that will remain sufficiently stable to be used again and again, must be based not on a class or a college. It must rest on a large, representative group, because learning is *relative*. A physician, for example, who might be outstanding in a small city could easily drop back to a position much farther down the scale if he were ranked among doctors from Chicago or New York. It is not otherwise with students of physics.

The American Association of Physics Teachers is to be congratulated because it has applied one of its own principles in physics to the measurement of learning. It is setting

up standards against which to judge the value of its product. It is in the vanguard of those who conceive of education as an orderly, measurable process that develops the individual to his fullest capacity and that enables the community to take advantage of its best talent.

F. S. BEERS,
University System of Georgia

The Council at Work

THE Council at Work is a brief summary of the outstanding new projects in which the Council is interested, as well as a progress report on undertakings already launched. It is hoped that this survey will give to the members of the Council and those interested in its work a more intimate view of the Council's development. Individuals desiring further information regarding subjects mentioned in this section are invited to write to the offices of the American Council on Education, 44 Jackson Place, Washington, D. C.

MEMBERSHIP

AT THE meeting of the Executive Committee of the American Council on Education in Washington on June 27, 1936, seven new members were elected to the Council. The total membership now is Constituent, 29; Associate, 28; Institutional, 325; total, 382. The newly elected members are:

Constituent:

National University Extension Association

Associate:

Delphian Society

National Association of Deans and Advisers of Men
Pennsylvania Board of Presidents

Presbyterian Board of Christian Education

Institutional:

Kansas State Teachers College, Pittsburg, Kansas

Massachusetts State Department of Education,
Boston, Massachusetts

THE FIFTH EDUCATIONAL CONFERENCE

The Fifth Educational Conference sponsored by the Co-operative Test Service of the American Council on Education, the Educational Records Bureau, and the Commission on the Relation of School and College of the Progressive Education

Association, will be held in New York City at the Hotel Roosevelt on October 29 and 30, 1936. A number of outstanding speakers in American education will address the conference and there will be a question and answer session and symposia of special interest groups. Registration can be made at the Hotel Roosevelt on the day of the meeting.

Dr. E. E. Day of the General Education Board will open the first meeting with an address on "Basic Responsibilities of General Education in the United States." President R. A. Kent of the University of Louisville, chairman of the American Council on Education for 1936-37, will speak at the luncheon session on "The Program of the American Council on Education." Other speakers on the first day include Dr. Francis Parkman, St. Mark's School; Mr. Burton P. Fowler, Tower Hill School; Dr. John M. Stalnaker, Princeton University; Dr. Richard M. Gummere, Harvard University; Dr. E. F. Lindquist, State University of Iowa; Dr. Richard D. Allen, Providence, Rhode Island; and Dean Max McConn, Lehigh University.

The second day meeting will begin with an address by Dr. F. P. Keppel, president of the Carnegie Corporation, on "The Arts in American Education." Dr. L. L. Thurstone, University of Chicago, will address the luncheon session on "A New Concept of Intelligence, and a New Method of Measuring Primary Abilities." At the dinner session on October 30, Dr. Edwin R. Embree, of the Rosenwald Fund, will speak on "Rural Education as a National Problem."

CO-ORDINATION IN TESTING

At its meeting in June, the Executive Committee accepted the report of the Committee on Review of the Testing Situation. The latter committee had worked for a year on the reorganization of the Council's testing activities. On the basis of the report, the Executive Committee established the Committee on Measurement and Guidance with the following members:

C. C. Brigham, Princeton University
W. W. Charters, Ohio State University
H. E. Hawkes, Columbia University, *Chairman*
E. R. Smith, Beaver Country Day School
G. D. Stoddard, State University of Iowa
A. L. Threlkeld, Superintendent of Schools, Denver,
Colorado

This committee will co-ordinate all the testing activities of the Council and will be responsible for the development of new projects in the field of measurement and evaluation.

COMMITTEE ON MOTION PICTURES IN EDUCATION

A grant of \$25,000 has been made by the General Education Board for the continuation of the study of the relation of motion pictures to education, a study in which the Council has been engaged for several years. The Executive Committee appointed the following committee to supervise this field:

John Abbott, Museum of Modern Art
W. W. Charters, Ohio State University
Ben G. Graham, Superintendent of Schools, Pittsburgh,
Pennsylvania
Mark A. May, Yale University

A significant addition to the field of visual education was made by the committee and published by the Council in September of this year in the volume, *The National Visual Education Directory: Elementary and Secondary Schools*. The book, compiled by Cline M. Koon of the United States Office of Education and Allen W. Noble, was made possible through the co-operation of the United States Office of Education. It is a tabulation of the audio-visual equipment in 8,806 school systems in the United States. It presents information regarding the projectors, films, and radios available in the various schools, as well as the names of the individuals responsible for visual education. The book sells at \$3.00 per copy and can be obtained from the Council.

AMERICAN YOUTH COMMISSION

In an effort to investigate more thoroughly the unemployment situation, the American Youth Commission held a joint

conference in New York last July with representatives of business, industry, labor, government, social welfare, and educational agencies participating. Two days were given to a discussion of the extent of unemployment among youth, causes of unemployment, ways of providing more employment for youth, types of training needed by youth for successful vocational adjustment, and how and by whom this training can be supplied. The conclusions will be released to the public at an early date.

Mr. Owen D. Young, vice-chairman of the Commission, presided. The following organizations were represented:

- United States Department of Commerce
- National Youth Administration—Advisory Council
- National Youth Administration—Administration
- American Association of Social Workers
- National Conference of Social Workers
- Community Chests and Councils
- American Federation of Labor
- National Association of Manufacturers
- National Industrial Conference Board
- United States Chamber of Commerce

At the May meeting of the Commission, Professor Harl R. Douglass of the University of Minnesota presented an exploratory paper on the problems in secondary education. Other exploratory papers have been prepared this summer, one on occupational problems by Dr. M. R. Trabue of the University of North Carolina. This autumn the problems of student health will be studied by Dr. Harold S. Diehl of the University of Minnesota and Dr. Charles E. Shepard of Stanford University.

The Commission's study of the Civilian Conservation Corps was started October 1 under the direction of Mr. Kenneth Holland, former C.C.C. educational adviser of the New England area. A grant of \$77,800 has been received for this comprehensive survey of the program of the C.C.C.

FINANCIAL ADVISORY SERVICE

During the first year of the Financial Advisory Service, over one hundred institutions requested comments and suggestions

on the forms of financial reports they were using. Many institutions were visited by representatives of the Service while others corresponded with the Service concerning specific questions and problems of financial administration. At the present time the Financial Advisory Service is co-operating in a survey of the Agricultural and Industrial State Teachers College at Nashville, Tennessee.

Assistance of a more general nature was rendered through the publication of six Financial Advisory Bulletins, complimentary copies of which were sent to all colleges and universities, as well as to others who were interested. These Bulletins deal with the following problems:

- Bulletin 1. College Finance.
- Bulletin 2. Depreciation of Real Property in Educational Institutions.
- Bulletin 3. The Balance Sheet in College and University Financial Reports.
- Bulletin 4. Current Investment Practices of Colleges and Universities.
- Bulletin 5. Current Practices of Colleges and Universities in Obtaining Professional Counsel and Services.
- Bulletin 6. Fitting the Accounting System to the Plan of Reporting Recommended by the National Committee on Standards Reports.

The General Education Board has granted \$32,000 for the continuation of the work of the Service for two more years. Additional space has been obtained for the central office, and the staff has been increased by the addition of a research assistant.

NATIONAL CONFERENCE ON EDUCATIONAL BROADCASTING

Dr. C. S. Marsh, associate director of the Council, is executive secretary of the conference on educational broadcasting which will be held in Washington, D. C., on December 10, 11, and 12, 1936. The conference, which will be sponsored by eighteen national organizations in co-operation with the United States Office of Education and the Federal Communi-

cations Commission, will serve as a clearing house for information on the latest technical and professional developments in the educational use of radio.

The tentative program includes such topics as schools of the air, radio music, speech and drama, religious broadcasts, forums on the air, organization of listening groups, radio workshops, broadcasting to schools, use of radio programs by colleges and universities, use of radio by libraries and museums, radio programs for children, problems of research in educational broadcasting, audience attitudes, educational broadcasting in other countries, and organization of the community on behalf of a radio station.

All organizations interested in radio as a social force, nationally or regionally, are invited to participate. The broadcasting industry will be represented. Government officials and prominent educators from America and foreign countries will take part.

A MANUAL OF EXAMINATIONS

An important contribution in the area of testing is the recently published report of the Council's Committee on Manual of Examinations. This report, *"The Construction and Use of Achievement Examinations; A Manual for Secondary Teachers,"* was prepared by a Committee under the chairmanship of Dean H. E. Hawkes. A number of distinguished experts in this field contributed to the volume. The book clarifies and puts into useable form the most recent findings on the factors that have been found basic in achievement examinations. It has been published by Houghton Mifflin Company, Boston, and sells at \$2.40 per copy.

PROBLEMS AND PLANS COMMITTEE

The Executive Committee has elected Dean H. W. Holmes of Harvard University to serve for one year on the Committee on Problems and Plans in Education. This vacancy was created by the inability of Dr. C. H. Judd to serve.

CONFERENCES AND MEETINGS

The Council has been represented at the following meetings since June 1, 1936:

Catholic Hospital Association, Baltimore, Maryland
Conference on Secondary Education, Williamsburg, Virginia
Fifth International Conference on Public Instruction,
Geneva, Switzerland

Harvard Tercentenary, Boston, Massachusetts

4-H Clubs of America, Washington, D. C.

Planning Committee of Sponsoring Organizations of the
National Conference on Educational Broadcasting, New York,
Chicago, and Washington, D. C.

Society for the Promotion of Engineering Education, Madison, Wisconsin

The president of the Council, Dr. George F. Zook, visited Alaska during the summer and gave some time to the study of the problems of public education in that territory. The associate director, Dr. C. S. Marsh, was one of the delegates of the United States to the Fifth International Conference on Public Instruction held at Geneva, Switzerland, July 13 to 17. The program of the conference is reported on page 547.

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PREFACE

The Fifth Educational Conference was held at the Hotel Roosevelt on October 29 and 30, 1936, under the auspices of the Committee on Measurement and Guidance of the American Council on Education, the Commission on the Relation of School and College of the Progressive Education Association, the Co-operative Test Service, and the Educational Records Bureau. The sixth general meeting of institutional members of the Educational Records Bureau was held in conjunction with this conference.

The sponsoring organizations have a common interest and point of view in regard to the philosophy of educational measurement and guidance. They believe that education should be primarily concerned with the individual, and that the learning experiences provided should be suited to his needs, interests, and abilities. Before this can be done adequately, the teacher and school must learn as many facts as possible about the pupil's abilities, achievements, and rate of development. To secure reliable, objective information about pupils so that teachers and counselors can provide wise, constructive educational guidance is the primary purpose of all educational measurement. Tests have certain values for research purposes, but their chief importance is in the diagnosis of individual needs, and in the adaptation of instruction to meet these needs.

The development of testing and measuring techniques has outrun the understanding and ability of educators in general to use the new methods. Testing techniques in themselves have no value apart from the use that is made of them in the actual practice of schools. One of the objectives of the conference, therefore, was to report on new developments in testing and guidance work and to encourage the schools to use the more promising materials and procedures in adapting the curriculum to the individual pupil. Teachers and test technicians are apt to have different attitudes toward tests, and

it is important that they should understand each other's point of view and co-operate in solving their common problems.

That there is widespread interest in educational measurements and their use in the guidance of pupils is shown by the fact that approximately 600 persons registered at the conference this year. Among the delegates were 160 representatives from colleges and universities, 269 from independent elementary and secondary schools, 101 from public schools, and 24 from educational associations and foundations. It is interesting to note that the registration data indicate an increase of about 150 over the attendance a year ago.

At the first session of the conference Thursday morning, Dr. Francis Parkman, headmaster of St. Mark's School, presided. There were three papers presented at this session and an opportunity was given for discussion following each presentation. Dr. Edmund E. Day, director of social sciences and general education for the General Education Board, discussed "Basic Responsibilities of General Education in America." Mr. Burton P. Fowler, headmaster of the Tower Hill School, read a paper on "Some Fundamentals in Evaluating Educational Programs." Mr. John M. Stalnaker, research associate at Princeton University, spoke on the technical difficulties involved in "The Problem of the English Examination."

Dr. Richard M. Gummere, chairman of the Committee on Admission of Harvard University, presided at the luncheon on Thursday and introduced President Raymond A. Kent of the University of Louisville. President Kent's subject on this occasion was "The Program of the American Council on Education."

Dr. Frederick H. Bair, superintendent of Bronxville Public Schools, presided at the afternoon session. Dr. E. F. Lindquist, associate professor of education at the State University of Iowa, spoke on "Changing Values in Educational Measurement"; and Dr. Richard D. Allen, assistant superintendent of Providence Public Schools, described "Testing and Guidance in a City Public School System." Thursday evening there was an informal question and answer session

with Dr. Lindquist and Dr. Allen serving as leaders. The session was largely devoted to a discussion of the papers which had been given in the afternoon, but there was also a general exchange of experiences with regard to problems of testing. Dean Max McConn of Lehigh University was the chairman for this session.

At the meeting Friday morning, President Henry T. Moore of Skidmore College presided. The first speaker was Dr. Frederick P. Keppel, president of the Carnegie Corporation of New York, who discussed "The Arts in American Education." Dr. Percy G. Kammerer, provost of Avon Old Farms, then spoke on "The Integration of Personality in Secondary Schools." Dr. Arthur I. Gates, professor of education, Teachers College of Columbia University, concluded the morning session with a discussion of "The Psychological Basis of Remedial Reading."

Dr. Eugene R. Smith of the Beaver Country Day School served as chairman for the luncheon session on the second day of the conference. Dr. L. L. Thurstone, professor of psychology at the University of Chicago, read a paper which he illustrated with slides on "A New Concept of Intelligence and a New Method of Measuring Primary Abilities."

The Sixth annual meeting of institutional members of the Educational Records Bureau formed an important part of the conference. Thursday afternoon and evening the five committees of the Educational Records Bureau held their annual meetings and prepared reports of their activities to be presented at the general meeting the following day. The members of the committees were guests of the Bureau at an informal dinner Thursday evening at which Mr. R. J. Shortlidge of the Pawling School served as host. Mr. Shortlidge expressed to the members present the appreciation of the Bureau for their help in serving on the various committees. He felt that the Bureau should be congratulated on its growth and its success as a co-operative enterprise.

The Board of Trustees of the Bureau also met Thursday evening and announced the election of the following three new members to the Board: Mr. Allan V. Heely, headmaster

of the Lawrenceville School, as a representative from the independent schools; Dr. Frederick H. Bair, superintendent of the Bronxville Public Schools, as a representative from the public schools, and Dr. Richard M. Gummere, chairman of the Committee on Admission of Harvard University, as a representative from the colleges and universities.

The general meeting of the representatives from member schools of the Educational Records Bureau took place Friday afternoon. Since the meeting was of general interest, all those present at the conference were invited to attend whether they belonged to schools holding membership in the Bureau or not. Mr. George A. Walton of the George School presided at this meeting and called first for the reports from the chairmen of the following five Educational Records Bureau committees: Independent Schools Advisory Committee, Public Schools Advisory Committee, Committee on School and College Relations, Committee on Relations between Elementary and Secondary Schools, and Committee on Tests and Measurements.

The second part of the symposium meeting was a discussion of the experiences of schools holding membership in the Educational Records Bureau. Contributions were made by representatives from Mount Hermon School, The Cambridge School, Park School in Baltimore, The Loomis School, Radnor Township Schools, and Plainfield High School. The papers presented by the symposium speakers, together with summaries of the reports of the committee chairmen, appear in this report following the main addresses.

The final session of the conference was a dinner Friday night at which Dean Herbert E. Hawkes of Columbia College presided. Dr. Edwin R. Embree, president of the Julius Rosenwald Fund, spoke on "Rural Education and the Teacher."

One of the features of the conference which aroused considerable interest was the demonstration of the new International Test Scoring Machine. The inventor of the machine, Mr. R. B. Johnson of the International Business Machines Corporation research staff, was present at the conference to

demonstrate the machine and answer questions about its uses and limitations. The machine scores tests of 150 items or less at the rate of about 1,000 an hour with greater accuracy than they can be scored by hand. This model of the scoring machine has been thoroughly tried out and gives promise of revolutionary changes in testing and guidance programs, particularly in the public school field. It is hoped that the machine may be made generally available some time during 1937.

Mr. Thomas J. Watson, president of the International Business Machines Corporation, was a guest of honor at the dinner Friday night. As an expression of appreciation for Mr. Watson's generosity in supporting the years of patient research that culminated in this successful scoring machine, the conference passed the following resolution:

WHEREAS, The manual scoring of objective examinations has hitherto constituted the most serious obstacle retarding the technical development and use of new instruments for more exact educational measurement and diagnosis; and

WHEREAS, Mr. Thomas J. Watson, president of the International Business Machines Corporation, has made possible an effective solution of the problem which promises to exercise a far-reaching influence on all educational measurement and guidance; now, therefore, be it

Resolved, That we, members of the organizations indicated below and in attendance at this Fifth Educational Conference held in New York City, October 30, 1936, do hereby express to Mr. Watson our admiration for the achievement accomplished under his auspices and our gratitude for his farsighted generosity in doing handsomely for the cause of Education a lasting service. With his genial wand he has at a stroke lifted from teachers and from institutions everywhere tedious and annoying burdens and has placed at their convenient disposal instruments of great educational value and promise. We consider him and his organization as signal benefactors of the cause to which we are devoted.

The American Council on Education
The Progressive Education Association
The Co-operative Test Service
The Educational Records Bureau

Basic Responsibilities of General Education in America

IT HAS been my privilege during the past six years to serve as a member of the Board of Education in the nearby suburban village of Bronxville, New York. The program of education in the Bronxville schools is frankly experimental. In the opinion of many, it is eminently successful. But opinions differ. There are those who regard the Bronxville school program as thoroughly unsatisfactory. These contrary views have given members of the Bronxville Board ample ground for reflecting at length on the fundamental purposes of publicly supported general education in the United States. While I have no authority to speak for other members of the Bronxville Board, I venture to offer my own lay views on this subject in the interest of some clarification of issues at once complicated and exceedingly important.

No single address of no more than tolerable length can possibly deal adequately with all the responsibilities of general education in our complex contemporary civilization. The subject spreads out through practically all the more significant phases of individual and social life. All I can hope to do on this occasion, therefore, is to deal with certain selected aspects of the subject. I shall confine my remarks to those responsibilities of general education which I regard as primary or basic, and to these primary or basic responsibilities as they relate particularly to our American society at the present time. Even with this more restricted approach to the broader subject, it will become clear that my observations are set in a framework for which there are alternatives, and that some of the emphases I shall give or fail to give are open to challenge. None can question, however, that certain conclusions within the subject greatly need clear formulation and more general acceptance, hence my willingness to present one definite line of analysis. May I add that I claim no novelty in the views

I have to present. I am sure that there are many in this company who have long entertained them, in large part if not as a whole.

Let me say at the outset that my thinking with regard to general education rests at bottom on the fundamental thesis that general education is a social function. The ultimate responsibilities of general education are social responsibilities, that is, responsibilities to society. Let no one suppose that this thesis implies an over-all political entity—a state—which may deal lightly with the lives of the individuals who live within its orbit. In America we subscribe to no such doctrine. We believe in a society which recognizes the dignity and worth of the individual and establishes the necessary conditions for his or her many-sided, worth while living; we believe in a government that establishes common justice and promotes general welfare. But these very ideals make it essential that individual interests be bent to social ends. Individuals may expect to be benefited by general education; most assuredly they are; but the advantages they obtain through general education are ultimately warranted only as they serve more than individual aims. It is quite clear that no persistent clash between individual and social advantages can be tolerated in the provision of general education in any enduring culture. Fortunately, subject to certain limitations which have to be recognized, individual benefits and social advantages can be wisely and successfully fostered through general education at the same time and by the same means.

Broadly speaking, the social responsibilities of general education fall into two main categories: (1) those directed toward the maintenance of social solidarity and stability; and (2) those designed to promote social differentiation and change. The first of these broad divisions of function has to do with transmitting and perpetuating the culture, the second with adjusting and elevating it.

That transmitting and perpetuating the culture is a primary function of general education is manifested in all forms of

human society from the most primitive and simple to the most advanced and complex. Human society as we know it could hardly persist did not each succeeding generation in large measure adopt the customs, the habits, the manners, the morals, the modes of thought, the prejudices and the preconceptions of the preceding generation. This process of social imitation is maintained, of course, by a wide variety of social agencies and forces of which the school is only one. But the extent to which the school is made responsible for transmitting the culture is increasing rather than diminishing. It is more than ever important, therefore, that the school should see clearly what is involved concretely in the discharge of this fundamental duty.

The rôle of general education in modifying and elevating the culture is not so evident. In general, it is safe to say that impulses making for social change have had their immediate source largely outside the school, and that the marvelous advances in science and technology which have characterized civilization of late have had little direct connection with the processes of general education, at least as formally organized. Moreover, it is clear that there will always be serious restraints imposed upon any attempt by the schools openly and explicitly to change the social order. Yet, beyond question, general education in some of its phases can be a ferment from which social changes are almost certain to spring. At any rate, it is to be recognized that, whatever may be the record of the recent past, general education has important contributions to make to social progress and that certain specific objectives should be set to this end.

In this connection it should be observed that the two types of functioning for general education which have been noted are to some extent in opposition to one another. There is, hence, a fundamental problem of keeping disparate functions in appropriate co-ordination or balance. In our own times social changes have been so extensively and rapidly induced that the maintenance of social stability has become a task of

huge proportions, taxing the resources of education in all its varied forms and phases. For the time being, the more pressing duties of general education relate to ways and means of effecting an adequate social solidarity. Increasingly it is becoming clear that the whole people must share common convictions, loyalties, and enthusiasms if any social order is to hold together and be efficient. The authoritarian governments of Europe are demonstrating one way to meet this basic requirement. Can the great democracies with equal pointedness show another but profoundly different way? I believe they can if they will but apply their utmost resources to the task. The problem is one of social discipline. Unless as a people we can develop such a discipline on a voluntary basis—unless, in other words, we can discipline ourselves—the coercive authority of some group employing force will impose the necessary social discipline we have failed to develop. For the time being, general education must make this general problem of the ways and means of social solidarity one of its prime concerns. Such social changes as are accelerated should be those which conduce to that underlying stability without which other social changes cannot possibly contribute to social progress.

With these general observations in mind, let us now turn to the more concrete analysis of the responsibilities with which here and now in America general education is faced. These responsibilities can best be examined in terms of specific outcomes to be sought. Five broad types of outcome may be distinguished: (1) the acquisition of basic skills; (2) the formation of habits; (3) the cultivation of interests, sensitivity, and appreciation; (4) the promotion of knowledge and understanding; (5) the inculcation of attitudes and ideals.

The most obvious responsibilities of general education relate to the mastery of certain basic skills. No one questions, for example, the importance in the schools of the three R's. Communication in the mother tongue is so indispensable to

our culture that we take for granted the necessity of teaching all to speak it, to read it, to hear it, and to write it. But the standards we set in this connection are lamentably low. In regard to oral use of language the schools do little; the job is supposed to have been completed before the children come to school. Neither in speaking nor in listening do most schools undertake seriously to cultivate greater skill. Teaching to read, on the other hand, looms as the largest single assignment of the early grades. While results upon the whole are gratifying, much more could be done to cultivate reading with understanding. Writing gets attention, but attention in many schools is inadequately or ineffectually given. As far as simple handwriting is concerned, the outcomes appear to be generally satisfactory. But writing as a means of lucid self-expression remains for most an unknown art. In general, it can be said that much still remains to be done to discharge fully the responsibilities of general education with respect to those skills which involve the use of the mother tongue in both the oral and the written forms. Educational experimentation and innovation, whatever its promise in other directions, should not be permitted to obstruct the progress that needs so much to be made in teaching our youth how to use more satisfactorily the language in which our culture communicates.

Another basic skill that clearly has to be mastered by all has to do with the elementary arithmetic operations. Numerical concepts, quantitative relationships, units of measurement, and arithmetic processes permeate our day-to-day existence. General education must see that all learn how to deal with them in their simpler forms. This does not imply an extended course of rigorous mathematical training even of an elementary sort; it does imply sustained instruction on how arithmetical operations are to be applied in concrete situations. To a surprising extent the mathematical training now included in general education fails to give social competence; it should be made to do so.

To the extent of the individual's capacity, general educa-

tion must concern itself with the cultivation and exercise of intellectual power. It may be that some of you will think that this is an obligation that may be taken for granted. I do not think so. While much lip-service is paid in educational circles to the importance of intellectual growth through education, actual school practices, especially in these days of wide educational experimentation, are oftentimes distressingly weak in their service to that end.

A part of the present deficiency appears to stem from what may be called the data complex. Informational outcomes of instruction are badly overrated; data returned to the instructor intact, one might almost say in the original wrapping unopened, are assumed to have been in some mysterious way profitably assimilated. Power to remember and to repeat is often all that is requisite to successful completion of the work.

It is, of course, fairly obvious that this type of experience bears only indirectly and not always significantly on the development of intellectual power. Not that memory is to be regarded as of no educational consequence, and knowledge as an educational impediment. There is not the conflict between knowing and thinking that some statements would lead one to infer. No one has yet succeeded in demonstrating that constructive thinking can take place in a factual vacuum. But at times thought does get mired in an ooze of unorganized facts, and research lost in a forest of trivial data. What is especially needed in the cultivation of intellectual power is repeated and varied experience in the critical analysis of manageable material, in the formulation of appropriate inferences, in the interpretation of data, in the organization of material, and in the solving of problems. Standards of accuracy have to be evolved and applied. The processes of thought and expression have to be disciplined through exercise in the principles of grammar, rhetoric, and logic with a view to expressing thought in words and ordering thoughts in logical form. The nature of proof, and of induction and deduction have to be learned from concrete cases. Growth of

intellectual power, particularly in its constructive and creative phases, is far from a simple and easy achievement; it requires most careful training and sustained and rigorous effort. In general, our schools are failing to bring it about in anything like the measure they should. Intellectual power is no social panacea; not too much should be expected of it; but the fact remains that in the long run the exercise of intellectual power is at the same time one of the surest sources of human satisfaction and one of the indispensable bases of social progress. In so far as we retain an abiding faith in intelligence, the cultivation of intellectual power must remain one of general education's primary responsibilities.

Beyond the skills displayed in using the mother tongue lie certain skills involving the employment of non-verbal forms of expression. Ability to use these diverse art forms is of great significance if civilization is to be ennobled and life enriched. The esthetic capacity which lies dormant in a host of people, young and old, is only now coming to be recognized. Progressive education has amply demonstrated that impressive results are to be had in this area. General education should do much more than it has to discover and develop skill in non-verbal expression in all its diverse and intriguing forms.

General education may also wisely acknowledge responsibility for the development of certain sensory and motor functions to a higher level of efficiency. Thus visual discrimination can be sharpened, tactile sensitivity heightened, manual dexterity increased, bodily co-ordination improved in ways that are bound ultimately to prove fruitful. The immediate educational results from such training may not be evident, but by and large the more general education can be directed toward the mastery of general skills, as contrasted with purely formal informational outcomes, the more permanent and substantial are likely to be its effects. This is especially true, of course, in the earlier stages of general education when students are still in the highly formative stages of individual development.

The second group of responsibilities of general education concerns habit formation. There are those to whom the assumption by the schools of any responsibility for student habits appears to lead inevitably to educational confusion. I do not share this view. On the contrary, it seems to me clear that the schools are bound willy-nilly to play an exceedingly important rôle in the formation of habits. The questions are: How frankly do the schools acknowledge the rôle? How seriously do they play the part? How successfully do they carry it out?

It is a highly important fact that the first sustained systematic application that most children experience is in the classroom. Work habits with most children are *made in school*. This is conspicuously the case, of course, in as far as the work habits have to do with intellectual effort. It is of the utmost importance, therefore, that the school face explicitly its responsibility for these work habits and take appropriate measures for assuring their satisfactory formation. In the early acquisition of sound habits of work lies a good share of subsequent individual growth and development.

What are the characteristics of the habits that need to be acquired? Doubtless the list might be made long. I mention only a few that seem to be most important: persistence, reliability, patience, courage, initiative, and an accountability to one's own standards of excellence. Too commonly the school tolerates passable results to the impairment of the habits of work. Students need to experience the satisfactions to be derived from tasks done to the best of their capacities. They need to be taught the values of self-initiated and self-directed endeavor. In fact, self-driven education needs to become a firmly established personal habit. Only when education becomes an individually accepted responsibility are desirable outcomes assured. In these connections, general education faces some of its most essential obligations. Good work habits are hard to form; they dissolve rapidly in the acid of slovenly practices. General education must see that

they are much more successfully nurtured than they are now by many classroom procedures.

In addition to the attention to be given to work habits, care must be exercised to promote better health habits. On the side of physical health much has been done and is being done; on the side of mental health, school procedures are still largely hit or miss. To a considerable extent well-grounded techniques directed toward mental hygiene are not yet in hand, but progress is being made and ultimately the schools can do a great deal. That general education must accept serious responsibilities for the physical, mental, and emotional health of young people in the schools cannot be seriously questioned.

A third group of responsibilities of general education has to do with the cultivation of interests, sensitivity, and appreciation. It is through the expansion and elevation of the range of spontaneous response that the prevailing culture is ultimately to be improved. Fortunately, there is in most young people a vast deal of native curiosity, a wide range of initial sensitiveness, and a large reservoir of fresh appreciations. These potentialities the schools must realize and capitalize. Social sensitivity needs to be fostered, the love of beauty cultivated, intellectual drive stimulated, and avocational and recreational hobbies induced. During childhood, interests are narrow and self-centered. Gradually the child's universe of acquaintance and interest must be expanded and objectified. Happily, the means by which we may all satisfy many of our desires are now so enlarged, and through public institutions and services—e. g., our parks, our libraries, our museums—made so widely and freely accessible, that the enrichment of life has become in substantial measure a matter of awakening and establishing worth while, many-sided interests. Herein lie the possibilities of a durable zest in living. It is to be noted that our better schools are already demonstrating what can be done along this line. In the development of wider and more worthy interests, general education faces one of its clearest and most important opportunities.

In the spread of knowledge and understanding, general education carries still another set of responsibilities. In a sense, these are its traditional responsibilities. Through general education, students are expected to acquire knowledge of the physical universe, the social order, and the cultural heritage. To a considerable extent, students do acquire such knowledge. They might acquire more than they do, however, even with no greater outlay of time and effort, if study materials were less extensively organized as formal, logical, systematic disciplines unrelated to the backgrounds and interests of the learner. After all, if the goal be appreciative understanding of the world about, the learning arrangements must be so set as to make clear contact with the world *in which the learner lives*.

This principle becomes even more controlling as the school moves into certain new and relatively undeveloped fields in which the attainment of better understanding is of supreme importance. I refer to the fields of human development and human relations. To a surprising extent formal education has failed to deal with some of the matters which concern us most intimately and affect us most vitally. What is the nature of human development in its physical, mental, emotional, and social phases? How are the normal and the pathological conditions to be distinguished? Of what do wholesome human relations consist and what forms do they take? Questions such as these serve to suggest areas of human experience in which more understanding, widely diffused, is greatly to be desired. The responsibilities of general education in the promotion of understanding are well established and clear. What they need is substantial redirection and more effective implementation in concrete school programs.

A supremely important group of responsibilities of general education relate to the inculcation of attitudes. Here again there are those who will resist the idea that general education should acknowledge any such purpose. As a matter of fact, the schools cannot possibly avoid a large measure of respon-

sibility for attitudes. This follows partly from the fact that other agencies are unwilling or unable to assume the burden, and partly from the more important fact that for youth pervasive influences inhere in the very nature of school experiences. For good or bad, the schools are bound to affect the attitudes of those who attend them.

If in this connection we think of the schools as playing a primary part in the transmission and perpetuation of American culture, we are bound to ask what elements in this American culture call especially for the inculcation of attitudes. The answer lies in large measure in the concepts and traditions of American democracy. Democracy, at least in its American version, consolidates two basic doctrines: (1) the maximization of individual growth and development through freedom and the largest possible equalization of individual opportunities; (2) the settlement of controversies between groups or classes of individuals by peaceful means through resort to discussion, persuasion, the ballot, acceptance, and appraisal. On the one hand is an ideal of social progress; on the other, a way of social adjustment. On the one hand is an urge toward a broad and expanding humanitarianism; on the other, a commitment to the ways of peace in human association. If adherence to these popular ideals means some sacrifice of the immediate national efficiency, the American people are prepared to see this price paid; even at a cost, the fundamental doctrines of the American democracy are to be respected. It is within the framework of these doctrines that American history has been written. It is to these doctrines that the loyalties of the American people are pledged. It is in these doctrines that the core of American culture is to be found. With the transmission of these doctrines from generation to generation the American schools must be profoundly concerned.

What I have just stated is something more than a plea for a typical program of Americanization. What the schools need to get at is a constellation of attitudes. As a social

order, we face growing collectivism. Of this, there cannot be the slightest doubt. No longer can the common interest be thought to emerge as the net resultant of the interplay of freely activated individual enterprises. No longer, in other words, can we rely so largely on the invisible hand of Providence so often cited by the classical economists. The individualism we have known has played its part. On the whole, it has played it well. But it must give place now to a tempered, moderated individualism, effectively conditioned to serve the public interest.

One of the fundamental bases for such a new individualism is to be found in the early shaping of individual attitudes in actual social situations. School life is a succession of social situations. For the young, these situations can be made real and vital. They can be made, through actual responsible participation, to inculcate appropriately socialized individual attitudes. Consideration for others, friendliness, sympathetic understanding of associates, toleration of individual differences of character, of ability and of opinion, fair play, team play, honesty, willing co-operation, wise leadership, loyalty to group interests, a desire for justice—these are among the attitudes that can be fostered. Obviously the desired results are not to be obtained by mere platitudinous preachments; they require wise and adroit handling of a wide variety of educational procedures. If school activities consistently stress the competitive, at times, the combative, one type of individual will emerge; if school activities commonly and constructively take co-operative forms, a different type of individual will appear. At bottom, the problem is one of balance: the values residing in individual achievement must be in substantial measure preserved, while the values to be secured from successful co-operation must be fostered. The possibilities along this line can only be realized as educators recast school procedures with wise regard to the attitudes to be induced. That the possibilities are of great significance seems to me self-evident. It is in this sector of the educational front that

in my opinion the schools may wisely "dare to build a new social order."

Let me add one further word about attitudes. Adherence to the American tradition of democracy should not be left by the schools to chance, nor, as I see it, to the ineffectual and essentially misdirected methods of instruction now commonly employed. The youth of the nation should be made familiar with the heroic efforts through which individual freedom, after centuries of struggle, was finally achieved. They should be made to appreciate the incalculable values which individual freedom brings to human aspiration and achievement. They should be made to see that resort to force as a mode of social adjustment is a negation of the principles on which American ways of life are based. They should acquire an unswerving loyalty to the American tradition of democracy. They should be led to work for it, to devote themselves to it. If all this involves indoctrination, I am for indoctrination, and let it be skillful and effective indoctrination. In the inculcation of fundamental attitudes general education in America faces its gravest responsibilities.

It should not be necessary in any company of educators to point out that the outcomes which have been cited can only become real and effective as they are embodied in the individual lives of oncoming youth. This involves the fundamental problem of achieving personal integration in growth and development. It is this integration in the individual, not integration in the curriculum, that is the fundamental consideration. Skills, habits, interests, understanding, and attitudes have to be cultivated and established as an organic whole, and with a nice regard to the capacity of the individual to submit to change and to effect a sustained personal development. An underlying sense of personal adequacy and security is indispensable. This is best attained through successful use of one's own expanding powers. As competence is demonstrated, self-assurance grows. As self-assurance develops, competence increases. Gradually there emerges a power to deal with

significant new situations and experiences. Of course, the innate conditions of individual growth and the stubborn facts of the physical and social environment raise obstacles; these must be recognized in seeking the attainment of all educational objectives, but the maintenance of the integrated personality must always be a governing principle.

Let it not be thought that the foregoing analysis of the responsibilities of general education in America is for the most part so general in its conclusions that no specific teaching content is indicated. On the contrary, the responsibilities that have been noted can be translated into concrete school procedures. It is of great importance that they be so translated, and so translated with educational imagination and social vision. Moreover, it is of great importance that measures be developed, as they can be, for ascertaining the extent to which the stated aims are attained and the responsibilities successfully discharged. It is time that general education in the United States was brought to more strict accountability. It is not too much to ask that larger results in social competence, in esthetic appreciation, in intellectual capacity, in common understanding and in human sympathy mark the graduates of our schools. The stakes are so great that no avoidable risks of failure can be permitted. Unless we are prepared to abandon our cherished American ways of life, the basic responsibilities of general education must be clearly identified and effectively met, and so met with a minimum of delay.

In conclusion, it is to be noted that the analysis of the responsibilities of general education which has been presented has dealt largely in terms of underlying purposes and educational outcomes. It has intentionally avoided questions of pedagogical procedure. It has said little or nothing about the nature of the learning process; the rôle of student interest; the place of discipline; the importance of making school experiences meaningful to the pupil; the indispensable qualities of the good teacher; the necessity and the means of adjusting

education to individual differences; the supreme importance of adapting teaching methods to the nature of the child in his or her successive stages of physical, emotional, intellectual, and social maturation. In the successful discharge of the responsibilities of general education these matters of procedure demand all the resources of knowledge, wisdom, patience, and courage that educators can bring to bear. By and large, the changes that have been taking place in the classroom during recent years exhibit positive improvements. Substantial progress has been made in teaching techniques. It is partly because innovations are being introduced, school programs reformulated, classroom procedures recast, and teachers retrained, that it is essential that basic purposes be clearly recognized and, if necessary, redefined. The ideas I have presented to you are an attempt to contribute to this end. More concerted efforts, however, are in order, for few social forces can so vitally affect the course of human events over the next generations as those which reside actually or potentially in formally constituted general education in our American democracy.

EDMUND E. DAY,

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Some Fundamentals in Evaluating Educational Programs

NO ONE can deplore any longer the lack of experimentation in the secondary school. While profound changes are not apparent, the administrator or teacher who stands pat is a rare bird. We are now experiencing some of the pangs that follow the first reactions to change, and these twinges are making us cautious. One hears less of condemnation and more of appraisal. We are probably approaching a rather wholesome consensus that there is no magical, brand new form of high school that will—presto!—cause all the old evils to disappear; that there is no one perfect type of administrative organization and curriculum that will usher in Utopia. We are beginning to sense the inadequacy of revolution in education as many of us are suspicious of it in government.

Instead, by beginning where we are, we may, by carefully tested next steps, arrive at a place further along the path of progress than we were; or we may find that what we thought was progress was only change.

After "four long years" of struggle under the Eight-Year Study we are not less hopeful but more humble. We are hopeful because we have met with varying degrees of success the challenge of a new and stirring opportunity; humble because we see how little has been done that needs to be done and how serious is the responsibility of trying to judge whatever results we have had thus far.

It is notable that the new curriculums of the thirty schools are, on paper, neither especially novel nor impressive. The smaller pieces of furniture have been moved about, but the piano is still in the only corner where there was room for it, and the bedroom is still a typical bedroom. About the best we can claim is that we have installed electric lights, so that we can find our way about better.

You will recall that the paper programs of the thirty schools reveal four principal types of curriculum organization. (1) Subject-matter sequences in the major fields of cultural experience, such as the arts, science and mathematics, the social studies, and the languages. This plan was already in effect in the schools selected for experimentation under the Pennsylvania Study. (2) The culture-epoch plan, by which certain courses, like English, history and the arts, or science and mathematics, or other combinations of traditional fields were fused in a problem-solving approach to one of the great culture epochs of history. This principle was borrowed essentially from programs that have been carried out successfully in the elementary school. (3) The directly functional organization of human relations in such areas as health, community life, use of leisure, and vocations. (4) Individually planned curriculums based on the interest of a single pupil or more frequently, a small group of pupils with common interests and needs.

It should be unnecessary to point out that these plans are not sharply distinguished from each other or completely consistent in their execution.

In September, 1936, some 1,100 pupils from these thirty schools have entered college after an experience of three years with the foregoing educational plans. Quite obviously no one, least of all the speaker, is yet qualified to evaluate the significance and net gains of this experience. We do have faith, however, much stronger than we had three years ago that these plans can and will be evaluated. We are beginning to see that types of evaluation, quite as significant as grade-placement by means of achievement tests, can be worked out to ascertain the validity of a given educational program. You are doubtless all familiar with the progress of Dr. R. W. Tyler's staff in undertaking this bit of pioneering.

I am not attempting, therefore, in this paper to say how far we have succeeded, or to appraise the validity of our programs. Rather, I shall try to show some of the things the

new electric lights have revealed—a good deal of shabbiness, some evidence of taste, a number of badly crowded rooms, a lot of Victorian curly-cues, and not a few dust rolls under the bed.

The first need that has from the outset been brought home to us is the formulation of concrete objectives, so stated that they would be constantly available by which to steer a course. Educational objectives have ever been, of course, the most platitudinous and anesthetic of all our educational patter. This fact should not, however, obscure their basic necessity for us but challenge our ability to make them real. The trouble with most objectives of the past has been that they were made *for* teachers rather than *by* them. Being the product of commissions of experts or research specialists, they were stars so remote that we were never quite able to get our chariots hitched up to them. Our own staff, for example, after several years of work, has agreed upon four main objectives for our work which are neither new nor startling, but, because they were the product of our own thinking and experience, have become powerful directing forces in our everyday work. We have merely re-discovered some obvious truths which have a fresh potency for us because they are our own conclusions. Briefly stated, these objectives are as follows:

We wish the progress of our pupils to be evaluated by four standards: Have they capacity for critical thinking? Can they understand the value of co-operative endeavor? Do they have a sense of values, derived from many forms of appreciation and expression? Do they possess mental and physical health? Over-simplified, these become *critical-thinking, co-operation, appreciation, and health*. Of course, in our formulation of these, we have many subdivisions and fancy circumlocutions, but the four questions I have stated constitute for us the major aims which are guiding us from day to day in our plans and procedures. A subcommittee of the faculty is responsible for the continuous revision and evaluation of each of the four objectives. Every member of

the staff serves on one of the committees, and one member serves as a general co-ordinating chairman. After much revision and refinement of plans, we have at present a fairly simple, workable scheme for the evaluation of each of these objectives for every pupil from the kindergarten through the twelfth grade. Objective evidence in the form of written data is collected, organized, and edited, so that at the end of each year a compact, carefully prepared summary is available as evidence of the degree to which each pupil has achieved progress toward the four goals. I would not have you understand, of course, that this is perfectly done. If it were, we could cast into outer darkness the inventor of the perfect mouse trap, but it is true that we have made progress, real progress, in one of the most difficult problems our faculty has ever attempted.

I have spoken, disparagingly perhaps, of the lack of sensational novelty in the new programs of the thirty schools. I am inclined to believe that this is the highest compliment that could be paid them. The Eight-Year Study was not undertaken to build new curriculums; it was undertaken to improve the attitudes and abilities of high school pupils, so that their work would have more significance for them, their habits become more efficient, their transition to college made with less friction, that is, in general to have our boys and girls achieve maturity where they were formerly immature. We wanted them to be capable of greater self-dependence; to be able to use books widely and wisely; to budget their time; to escape the slavery of rewards and penalties; to read with discrimination and to write with facility; to use their imagination more freely and creatively; to keep their minds alert and undulled by a meaningless, lesson-learning school routine. I suspect that the high school of the future will not be so strikingly different from that of the past in subject matter content as it will in ways of behaving. It is in the field of behavior—that is, motives, purposes, and conduct—that some day will enable the secondary school to come into its own.

With this point of view established, partly the substance of things hoped for and partly fulfillment, I should like to suggest a few of our experiences and misgivings that have caused humility to be substituted for cocksureness.

One thing we discovered early was that in planning any program or reorganization we must take pupils into our confidence and convince them that they are not guinea pigs. Pupils more than teachers rarely lose sight of the fact that they grow up but once; and, although an experiment may not be disastrous to a school, it can do irreparable damage to the individual—an inescapable fact that has doubtless retarded educational progress. If a general feeling of insecurity on the part of students is coupled with an inevitable feeling of insecurity on the part of teachers, a new curriculum is doomed to failure before it is fairly launched. It is all very well for the educational theorist at a safe distance to say airily: "That is unavoidable. If your school is unwilling to take the risk of failure, you should not have accepted the responsibility in the first place." Such a rebuke may be merited for schools that are frankly experimental and are known by their patrons to be such, but most of the thirty schools make no pretense to being laboratory schools. They are just average or better than average American public and private schools that desired freedom to make certain changes about which their staffs had deep convictions. Well, that hurdle has been safely cleared, I believe, for most of the schools, but it has meant a constant interchange of views between teachers and pupils, between teachers and parents, between pupils and parents, and most of all among the teachers themselves. This sharing of ideas has been in itself one of the most tonic effects of our participation in the Eight-Year Study. I suspect that among many of our most conventional schools little or no time is taken for establishing this continuous interchange of purposes and procedures, so that whatever is being attempted may have meaning for these three groups most vitally concerned: teachers, pupils, and parents.

The continuous quest for a common philosophy, not only in the whole field of secondary education, but in each separate educational unit, is a major need which the Eight-Year Study has sharply focused.

This problem is further complicated by the colleges. We most certainly were assured of their co-operation before the Study began. They have accepted in good faith our pupils three years later, and we confidently expect that they will place no obstacles in their path in college, but still the catalog remains as an ominous reminder that our pupils have not had a conventional preparation. They may have had four years of social studies instead of five years of foreign language; they may have omitted plane geometry; they may not have read Hamlet in the senior year; they may have devoted a quarter of their time to art and music. Even such minor deviations have raised doubts in the minds of sincere teachers. Are we planning wisely? Are the new experiences as valuable as the old? Will our pupils be well fitted to cope with the hard realities of a world where competition is still fierce, and copy-book precepts soothe but do not disturb? We have had to resolve these doubts; we have had to make them our most valued assets. I suspect the greatest hazard of the traditional school is its absence of doubt.

Another question that constantly vexes and should vex every honest administrator is balance. An unbalanced budget is a trivial affair compared with an unbalanced curriculum. Deficits can be paid in installments for a hundred years without impairment of credit, but immediate bankruptcy may be the fate of a youngster who has not learned what he needs at the moment he needs it. The boy who enters the eleventh grade unable to read and write; who is without the background of skills, facts, ideas, and understandings needed for advanced study or entrance into a vocation; who has acquired slovenly habits of thought and expression, may be crippled permanently in doing successfully the thing he is potentially fitted to do.

There must be a certain ruthless definiteness in our programs, yet also an abundance of variety and free choice. Therefore we are constantly asking ourselves: Are there pupils doing the things they will need to do better than they would have done them under a more conventional program? Is their English composition excellent? Do their individual reading programs show range and richness? Have they had access to a variety of cultural fields? Are their likes and dislikes under control? Are their work habits efficient?

In a sense, of course, we need not lie awake nights thinking that these troubles would be wholly on our doorsteps, in view of the fact that the secondary curriculum ever has been so perennially unbalanced and the results so generally unsatisfactory that no one should hold us up to any especial scorn.

Another problem that continues to perplex us is the social studies. We have no misgivings about over-emphasis in this field, since it is hard to see how any intelligent person could justify our past, scanty treatment of human relations. The one-unit requirement which still characterizes our college admission officers' notion of balance in a curriculum remains as one of the most astounding curiosities of present day college preparation. But what does bother us, if we are honest, is what do pupils need to study at various age-levels about human society? I cannot answer this question, but I can ask several others. Are many of our new courses, and the old ones, too, for that matter, too heavily loaded with problems that are beyond the factual background and limited experience of our pupils?

A recent article in one of the professional magazines illustrates what I mean. The writer asks questions like these about the curriculum:

Is he (the high school pupil) proof against the obvious propaganda of radio, newspaper, and photoplay?

Is he an intelligent student of consumers' problems?

Does he have an understanding of the major social and economic consequences of machine production?

Is he familiar with the outstanding problems of his community?

Does he have a realistic and sympathetic approach to the social and economic needs of the population, and is he acquainted with the leading proposals for the solution of these problems?

How safe is it to consider such questions as immediate goals of courses in the social studies? Certainly many principles and facts related to their solution should be woven into the fabric of every such course, but the implication is that simple solutions to problems that baffle even the five leading candidates for the presidency are to be found by the sixteen-year-old boy. I fear that this tendency toward over-simplification of issues exists in many of our newer courses of study, to the extent that snap judgments, superficial thinking, and a negation of the very attitude of open-mindedness which youth needs to cultivate may result.

I am inclined to believe that the great contribution of the social sciences at every age level is to the understanding of those fields rather than the substitution of one bias for another. The teacher of social studies should inculcate values derived from the subject matter of the social studies and the application of these values should be left to the student's own thinking.

Let us not talk too blithely of culture-epochs, survey courses, and problems of democracy, unless we are sure that the background and maturity of our pupils is such that order instead of confusion may be the educational product. "For long years," says Dr. Whitehead, "the major aspect of education is the reduction of confusion to order, and the provision of weapons for this purpose."

We must be concerned with courses that are so skilfully organized that they will give to the learner a sense of satisfaction and continuous growth. He should be more concerned with techniques of thinking and with their application than with the acceptance of the teacher's recipes for current social ills.

Here, again, diffuseness and inadequacy can be safeguarded against by frequent discussion with our pupils to show them intrinsic values in their courses and evidences of their own growth. Frequent inventories in the form of standard tests, especially of the type being developed by Dr. Tyler's staff, as well as the usual essay examination, should help to give a pupil confidence in the concreteness of his learning.

Another general problem closely related to this one of the social studies has to do with the degree of provision we are asking for the maximum progress of the individual. There is a serious danger that we may be misled by the glitter of group achievement. Our pupils will go to college individually, not collectively. The achievement of the group will not help William when he finds himself in the college library faced by the task of finding out why revolutionary movements in Europe have had so little effect upon England.

A brilliant play based on Greek mythology, which has been written by two gifted pupils and presented by a tenth grade class of twenty pupils, may be an experience of rich social and esthetic values for the whole group; nevertheless, these values are certainly not identical for every pupil. Just what did this boy who ran the curtain and helped clean up afterwards get out of the enterprise? Something valuable, probably, but just what was it, as compared with that gained, for example, by the girls who wrote the play?

I should not like to be misunderstood as belittling group achievement. For many classes the play may be the one experience needed to fertilize the soil for the crop that is to follow, but let us make sure that we keep values carefully assorted and identified for the individual pupils.

Similarly, we are learning not to mistake other forms of glitter for gold. In general, I believe many of our modern courses may attach excessive importance to mere verbal facility. Many brilliant but superficial pupils, either in speaking, or in writing, can give the appearance of learning without having either studied or learned. Words frequently cover up lack of insight. One can air one's views on modern problems

with great glibness and be wholly devoid of scholarly qualifications and desirable attitudes. The clever student with verbal facility rates disproportionately high in most of our classroom discussions and written examinations. Let us try to organize our courses so that mere cleverness is not mistaken for solid achievement. And again, balance in the curriculum should provide for both the personal and the impersonal, for the inexact and exact type of content.

A final urgent need is a clarification of this whole question of integrated courses. As Dr. Briggs said in a recent paper: "I have no objection to fused courses, providing they do not merely melt base metals and offer the amalgam as pure gold." We want, of course, a better organization of the materials available for more significant courses in French, mathematics, and science; yet we know, intellectually, that all subject matter is essentially a unit. Pupils do not realize this; therefore, as Dr. Neilson says: "They continue to go to college without having a long view of mathematics." It is not surprising, then, that the logical demand has arisen that mathematics be restored to human experience where it originated; that artificial barriers between history, literature, and the arts be obliterated. Human experience is never single but multiple. If our pupils fail to see subjects in relation to life, the chances are they will miss absolutely their chief significance. On the other hand, we have yet no reliable evidence that mathematics taught in relation to science, or composition in relation to history, has a larger functional value than when these things are taught separately. Our reasoning tells us it ought to be so, but evidence is lacking. If greater interest and application result, that fact alone makes our "hunches" have some reliability. The point is, however, that the form of our programs, apart from their motivating spirit, will not insure any genuine progress in secondary education. Integration, whether in the printed curriculum or in the pupil's mind, or in the co-operation of teachers, may be a profound educational principle or it may be just another bit of educational jargon.

We need much more experimentation and better practices in this field.

The present trend toward correlated courses and co-operative teaching, however, is on the whole, I believe, a promising development. Properly safeguarded experiments in this field, I am convinced from our own experience, need not be costly for the pupil. At any rate, with every change, we need to ask ourselves whether we are organizing our courses for greater concentration of effort, for greater mastery and meaning, and not merely adding another hue to Joseph's variegated costume.

I suspect then that much of the effort of the thirty schools during the past three years has been expended not so much in using their freedom to experiment as in seeking guidance for better teaching.

What are these standards for evaluating better teaching?

1. A formulation of objectives so definite, so adequate, and directive that the daily procedure of the school is profoundly affected by them.

2. A respect for skills of expression and processes of thinking that will cause the staff as a whole to strive for maximum efficiency in their use. Such skills as reading, writing, and discussion; such processes of thinking as demand a background of facts with which to attack the solution of problems.

3. A continuous study of the whole program of the school that will insure balance as to the exact and inexact types of experience; the personal and the impersonal; the imaginative and the factual; the manual and the mental.

4. The acceptance by the staff of the idea of essential unity of subject matter, so that by fusion of courses, reorganization of materials within courses, correlation of reading, or by co-operation of teachers in a variety of other ways, learning may become deeply significant.

5. Provision for the needs of the individuals within a group, in such a manner that the special abilities of each may be realized and his maximum growth stimulated. Such provision for individual needs must include not only a wise choice of courses, but a proper differentiation of materials and methods.

6. A continuous utilization of the resources of the com-

munity, student government, the assembly, the library, and home and school relationships, in such a way that education may have the largest immediate functional value in the daily living of pupils.

7. The discovery and application of new types of evaluation that will extend our present wooden instruments of measurement such as examinations and standard tests to the larger and more basic areas of principles, relationships, interests, attitudes, and responsibilities, so that we may have more and better kinds of evidence as to the attainment of our objectives.

In brief, this quest for better practices instead of more exciting programs comes back to the motivating spirit behind all teaching and administration. This motivating spirit is not merely a rosy-hued school spirit, but a co-operative attack by a faculty, possessing wisdom, zeal, and insight, on the problems of the secondary school,—problems which they are prepared to attack because they have applied to them the same critical thinking and capacity for action which they hope to inspire in their pupils.

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The Problem of the English Examination

THERE is a genuine and immediate need for valid tests of writing. The paramount importance of the ability to express oneself in writing needs no proof here. It is strikingly attested by the amount of time devoted to the subject at the elementary, secondary, and even higher levels of education. Because this ability is subjected to so many and varied practical applications with results which are frequently unsatisfactory, it is commonplace to criticize the schools for their failure to teach pupils to write. The schools have no satisfactory reply to this indictment because no adequate tests are available to show just what the condition really is. The solution of many problems in teaching, selection, classification, and certification awaits the development of a good test of writing. The complex problem of devising and grading valid examinations in this field has not been solved. Two types of tests are at present widely used, neither of which, in its present stage of development, is satisfactory. The objective test is unsatisfactory because it restricts itself in general to certain mechanical features. The essay test is unsatisfactory because no methods have yet been put into practice for evaluating the writing in a meaningful way.

The tests which can be scored with complete objectivity have long been extolled by those of us interested in measurement. In fact, some of our enthusiastic statements about objective tests have exaggerated their attainments on the one hand, and over-simplified the examining situation on the other. Today we find wide acceptance of the objective forms and a growing realization of their possibilities for measuring more than mere possession of elementary facts. Volunteers now step from the ranks of the teachers themselves to defend objective tests. Furthermore, we find excellently constructed objective tests being made and used by many teachers. Those of us interested in the technical side of examination procedures are delighted at these results.

We must pause for reflection, however, when an English teacher states, as a professor of English does in a recent publication, that, in measuring a student's ability to write, objective tests dealing with the "essentials of English" were used to the exclusion of any actual writing by the student, because it was felt that any test requiring writing would be invalidated by the lack of complete objectivity in the reading of the papers. The professor, appreciating, no doubt, what the reaction of her colleagues would be, states explicitly and without humor that "to amass an array of statistics was *not* the aim."

A French test requiring no French; a typewriting test with no typing; a mathematics test with no problem to solve; and an English test without writing! The notion is striking. Such tests are possible, however fantastic they sound. The form of a test, it has been said, gives no indication of the ability being tested. Indirect indices may be found which relate to the ability in question and which may be used as a measure of it. Indeed, it is reported in the literature that one school even used a test in mathematics to assign students to sections in English and that this test was found to work about as well as the English test. This is a case where a test containing nothing even remotely related to writing was used, with some success, as a substitute for a test of the ability to write.

Little skill and knowledge are necessary to make a test for English which will be better than a mathematics test. Almost anyone who has a knowledge of the common objective test forms, and has access to the composition handbook used in his locality, can throw together such an objective test in the mechanics of English. The size of the handbook is the only factor which will limit the number of sections the tests will have. Sentence structure, diction, punctuation, grammar, and idiom are common ones. If one is equipped with a dictionary, a vocabulary and spelling test may be added. To round off the test, a volume on the history of literature with a thorough

index is needed. A series of questions dealing with who said what, or wrote what, or was born when, and the like, will constitute a test which measures the student's present knowledge of some facts of equivocal significance about literature. The battery is then subjected to the scrutiny of a teacher or two and the most offensive items are removed. After giving the test to a few hundred students, an item analysis can be made, utilizing any one of the popular techniques. The test resulting from the revision based on the analysis will take its place in the first ranks of English placement tests. It will yield a total score of questionable meaning which will be reasonably stable or reliable. Because of the high relationship usually found among desirable intellectual abilities, it will yield a modest correlation with the usual criterion measures, even as the mathematics test did. It will enjoy a wide use, particularly if norms have been collected to enable the teacher to compare her students with other populations.

The astute and outspoken teacher of English protests, with some justification, that this test is not a true measure of the *ability to write*. Were he more versed in the technique of measurement, he might object further by raising many an embarrassing question. What is the relationship between the spelling test used and a student's ability to spell as measured by his accuracy in free writing? How authoritative is the handbook? What is the relationship between the student's knowledge of form and his ability to apply this knowledge? Do the inter-relationships among the scores on the various sections of the test suggest that these sections are all measuring the same ability? Is the test composed of items from a homogeneous universe? How well does the test relate to other tests constructed in a somewhat similar fashion? How does it relate to subjective tests? Do persons who are said to write with clarity and accuracy score higher than those who are said to write incompetently? The answers to some of these questions are as dependent upon further analysis by the English teacher as they are upon fur-

ther experimentation by the technician. The point is, they cannot be answered today.

The skeptical teacher may press further, saying that, regardless of how good a measure this so-called "scientifically" constructed test may be, it has an unfortunate effect on the curriculum. The student wishes to study the things on which he will be tested. He wants to study them in such a way that the relationship to the test situation is obvious. If no writing is called for on the test, then no writing should be called for in the classroom. The reply to this argument given by those of us who have defended objective tests in English is both long and involved. It does not, however, answer the teacher in terms he can apply to his immediate situation. The teacher has a point. Fruitful theory may result from considering teaching and measurement as completely separable and independent functions. But practically tests do have a direct bearing on the curriculum. The English test which has a bad influence on the teaching of English is not a good test. The didactic and measurement processes are not completely separable in the educational situation. There is no need to pretend that they are.

Many of the existing objective tests in English have been built after the fashion just described. Some of the steps may have been omitted or elaborated. Naturally, the results are not satisfactory. The present objective tests in English do not yield indices which are descriptive of the ability of an individual to write. They do have certain values beyond question, but the results must be interpreted with caution. At the present time objective tests in English are of most value when they are used in conjunction with other types of tests.

* * *

While the test technicians and teachers interested in examinations as measuring devices have been working on objective forms for English examinations, what has been done to improve the essay examinations? The history here is sad

to relate. More by default than by design, the essay test has fallen to the care of a conservative group of teachers interested in examinations as definitions of goals. They have been completely satisfied with the traditional essay forms and have, consequently, made little change. The efforts that have been made to improve essay examinations have dealt with the reading of the examinations, and they have been made by the technicians.

Let us consider the familiar type of essay question which has been used for years to test a student's ability to express himself: "Write a composition of about so many words on one of the following topics." The topics range from simple descriptions, such as *A Night Sky*, *A Rocky Pool*, *Under Forest Leaves*, *Silence*, *Traffic*, *Bridges*, to such topics as *On Rejecting Advice*, *On Shifting One's Mental Gears*, *The Values of Athletics*, *Is Youth Today Irresponsible?*, *Nature Has Her Moods*, and so on *ad nauseam*. Such a question has the advantage of requiring little thought or equipment for its construction. Any topics will do, no matter how silly, how incomprehensible, how ill-suited to the student or how far removed from his interests and experience.

Why can this common essay form, as it is now worded and read, never be of value? Why is it a poor device for testing the ability of the student to express himself as well as for teaching him to do so? There are numerous reasons, and it may be well to list some of them.

The objective of composition courses at the high school level is, I assume, to aid the student to express himself clearly and accurately within the range of his interests and abilities. The typical assignment, on the other hand, seems to presuppose that the primary purpose of composition courses is to teach the student to write charming nonsense about something in which he has no interest, or to force him to imitate an eighteenth-century model which he neither understands nor appreciates. The artificial writing called for by the usual theme is as unrelated to the type of writing the student will

be required to do outside the composition classroom as is the worst type of objective material!

Another weakness of the traditional essay is the inadequate definition in the instructions of what the student is to do. What is the purpose of his writing? To what audience is he to address his remarks? A British critic of the composition examination suggests that the implied directions to the student for writing an essay are: Write anything about any one of these topics for anybody. The mere directions to write "anything for anybody" are not sufficient.

Still another reason why the traditional essay question gives unsatisfactory results is the fact that it is rarely read with a reliability of over .60—that is, two readers cannot agree on the quality of a paper. Reliability of reading can be improved and must be improved to the point where coefficients of .90 are the rule, but in so doing the baby must not be thrown out with the bath. Just as any subject matter can be forced into ill-suited objective forms, so can any essay be read with a high degree of consistency by enforcing arbitrary and quite artificial standards, which may be only remotely related to the ability to write, and which will destroy any possible validity of the exercise. The reliability must not be gained at the expense of the validity. The judgments of the readers must be based on the important qualities and characteristics of the writing. For example, two readers would doubtless agree much more closely than they now do on the grade of a theme if the grade were based solely on the number of errors in spelling and punctuation, but the grade would certainly not represent completely the student's ability to write. An even closer agreement, and a more meaningless index, can be obtained by basing the grade on the number of words written.

There are several explanations for the lamentable inconsistency in the reading of themes of the usual sort. For one thing, competent masters in English do not agree as to what constitutes a good theme. To some, the essential ingredients

are one combination of qualities; to others, another. Each reader has his own ideas, and, since no explicit statement is made as to what the themes are to be read for, individual standards rule. One reader may stress mechanical perfection in writing. Another is interested more in the ideas expressed by the candidate. Some readers have even used grades as a disciplinary device. An excellent paper is given a modest grade in the hope that the lower grade will prove a stimulus to greater activity or will lessen conceit or in some way make the candidate a better person. One reader bases his grade on the quality of the reasoning shown; another tries to judge the intelligence of the writer and assigns his grade accordingly. Many other qualities may affect the grade. What is the originality shown by this paper? What is the sophistication of the writer, his liberality, cynicism, verbal fluency, skill in diction, the size of his active vocabulary, his style, his organizing power? Does he conform to the traditional essay pattern? Does he display some acquaintance with a literary background? Even the quality of the handwriting, although it is not recognized as a determining factor, is too frequently one of the important criteria. In brief, the theme constitutes such a variety of elements that any reader should be pardoned for not finding in it just the pattern which another reader does. Is it any wonder that the reader forgets that the theme is being used as a test of the student's ability to write plain, unadorned prose, expressive of his ideas, however weak those ideas may be?

These criteria of judgment vary not only from reader to reader, but also with the same reader from day to day. A *C* paper may be graded *B* if it is read after an illiterate theme, but if it follows an *A+* paper, if such can be found, it seems to be of *D* caliber. The influence of the reader's physical condition on his grades should also be mentioned, although it has been frequently and uncritically stressed by the opponents of the essay test.

Another explanation of the widespread unreliability of

reading is that the typical English reader has the feeling that to grade an essay A or A+ is virtually to elect the candidate to the American Academy of Arts and Literature. One reader told me with seriousness that he doubted if any of his colleagues on the English faculty could, under test conditions, write a theme of B quality or better. He was not condemning his colleagues; he was indicating what he meant by a B paper. Recently, in reading 7,000 essays, the readers used an eight-point scale. The papers given the top four grades constituted less than 20 per cent of the group. The highest grade, A+, was given to only three of the 7,000 papers. Through condensing the grading scale and holding up ridiculous individual absolute standards, the reading was made even more unreliable.

The traditional use of optional topics further complicates, in an indeterminate fashion, an already bad situation. This fact cannot be pointed out too often. A recent study of the grades awarded optional topics showed that 38 per cent of the students who wrote on option *a* were given high grades by the readers, whereas only 8 per cent of those who chose topic *b* were given similar grades. Why did this discrepancy occur? Perhaps it was because good students chose topic *a*. Perhaps it was because the readers graded topic *b* more stringently. Perhaps one topic is intrinsically more difficult than the other. A dozen more "perhapses" may be added; the truth of the matter is that no one knows or can find out what happened. The student, of course, suffers because his grade does not represent his ability.

The student, because of all these difficulties, cannot be expected to write themes of a given quality with any consistency—and he doesn't. If he has the luck to secure a high grade on a topic given today, he may receive a low grade on one assigned tomorrow. There are many reasons why this variation occurs. It is partly due to the unreliability of reading. His inspiration may vary. A carefully worked out paper, sometimes called a "canned" theme, is not so easily

adapted to a topic from the first list as to one from the second. Perhaps he stumbles into and handles badly a tricky grammatical construction in the one paper and not in the other. In order to rule out this source of error caused by the inconsistency of the student, he should be required to write about ten to twenty different themes of the present variety if a representative grade on *theme writing* is to be reasonably certain. In general, it is not practicable to secure a sample of this size under test conditions. Even if it were, the cost of reading the papers would be prohibitive.

The traditional essay test is thus seen to be as unsatisfactory in its way as is the modern objective test in its. The problem which faces the English teacher and the test technician is to devise exercises of one sort or another which demand actual writing by the student and to devise means of grading these exercises with great consistency, and still make them yield a meaningful index of skill in plain expository writing. In so far as skill in writing involves knowledge of a certain amount of material which can be easily tested by objective measures, the test should contain objective sections. The unwillingness of some English teachers to admit any objective material into their examinations is as detrimental to the development of valid English tests as is the unwillingness of the opposing camp to experiment with questions demanding evaluation by competent readers. The valid test will contain both types of questions.

The initial step in the procedure of constructing this improved examination is a difficult one. The whole process of writing must be subjected to a thorough and critical analysis by the best minds concerned with and experienced in the skill. Certain fundamental principles of writing will emerge. A valid content or subject matter will thus grow up about writing, and provide the English instructors with a rational basis for instruction. Then, competent masters of English will be able to define the criteria of good writing in meaningful language and to recognize various degrees of attainment.

This task is such a difficult one that only an incomplete solution can be expected. The distinction between the objective of "literary" writing and what may be called the practical type of writing will undoubtedly have to be understood. English teachers will have to admit that their task at the pre-college level is to teach students to express themselves accurately and precisely, rather than to cultivate budding literary geniuses. Having made this admission, they must adjust their procedures to fit their objectives. The colleges wish tests which will differentiate those students who are able to express themselves in writing with reasonable clarity and accuracy from those who cannot, regardless of what they are writing about. Precisely what is meant by clarity and accuracy must be worked out. It need bear little relationship to the ability to write an essay about *Grass*, *The River*, *Over the Hills and Far Away*, or *Disadvantages of Growing Up*.

A statement and analysis of the abilities demanded in clear expository writing will give clues to what we must measure. Then, rather than trying to devise an exercise to measure all of these qualities at once, we shall have to try to measure them separately. The exercises will be short, for the test must secure enough samples of the student's writing to constitute a dependable measure.

The proposed exercises should be carefully tested by giving them to groups of students and having the products read. The statement of the problem and the instructions to the student will then be revised as a result of the pre-testing of the exercise. The vague terms of the present questions must be changed for careful and precise wording. At present, the readers, like the students, debate about what the examiner meant. Regardless of who composes the directions, their clarity and precision must be established through pre-testing. Readers will have to indicate necessary changes in the exercises to make good reading possible, for readers must be able to agree on the worth of a paper before the exercise is acceptable.

Probably such concepts as originality, style, and inspiration will not be useful in reading the papers. What is wanted is a measure of the student's *dependable habits of writing*. To what extent does he have a *permanent, established skill*—a skill that will operate to the same degree today, tomorrow, or next week, the same in the morning as in the afternoon? The examination questions should not be formulated to inspire the student. His inspired creative genius is *not* to be tested; rather, his consistent underlying ability is to be given a chance to display its power.

* * *

Passing from the generalized formula to an imperfect illustration or two is dangerous. It is desirable, none the less, to give definite hints of possible approaches. The following exercises, which must be judged in comparison with existing English tests, have been developed in part by experts in teaching English and in part by technicians as illustrative material for the English masters to bend to their uses.

Such knowledge of grammar and general mechanics as is necessary can be tested objectively. It should be tested. The assumption that grammatical weaknesses will show themselves in the student's free writing is not a safe one. The student should be pushed into certain situations rather than be allowed to wander around aimlessly in the hope that he will stumble into them by chance. Objective exercises which cover points in mechanics take little time and demand that the candidate react to many situations. One form of testing certain of the mechanics of English which is not completely objective is a so-called *construction shift* test, in which the student is given a sentence and told to make a specified shift in it, together with all other changes made necessary by the directed change. The student, in going over a written paper, frequently has to follow a similar procedure. This *construction shift* form is quite flexible. It may be used to determine whether a student knows how to subordinate and co-ordinate ideas, to shift emphasis, to change from active to passive voice, to vary tenses,

as well as to test a knowledge of basic grammar and sentence structure. This test is not objective, but has been read with a reliability of .98. It makes possible the testing of a great many points in a short time. It has the advantage that the student cannot, as in free writing, avoid the issue.

Another very short type of exercise is one in which the student is directed to reduce given sentences of a verbose nature to as few words as possible without the sacrifice of any of the essential ideas. The implication of this exercise is not that all writing should be stripped to bare essentials. Verbosity in general, however, is obnoxious, and in this exercise the student is to reduce wordiness to a minimum, to show that he knows what ideas are essential, and how they may be tersely expressed. Think of how few words are necessary to express the essential ideas contained in a paragraph taken at random from a political speech. These exercises, even when made apparently obvious, are difficult for the students. Readers can, with a little training, read the answers with great consistency.

Expository paragraphs may be presented for rewriting. A series of correctly ordered, short, choppy sentences may be presented to the student, with instructions to introduce smoothness in the paragraph without changing the organization or the ideas. The student, in rewriting the paragraph, can show his ability to compose correct sentences, to subordinate and co-ordinate ideas, and to introduce variety of sentence structure.

A series of long, elaborately constructed, but not verbose, sentences may be presented for the student to rewrite. Another possibility is to present a paragraph containing sentences of exactly the same length and the same construction for the student to rewrite.

All these exercises can be, and have been, read with high consistency. They may be further extended by having the student first criticize the passage and then rewrite it. His criticism may be graded for both content and form.

The improved examination will not discard exercises calling for a freer type of writing, although explicit directions will be given to the student as to what he is to do. Possibly some control of the content of the writing will also have to be made.

Furthermore, the student should not be given a choice of doing either this task or that. True, the student feels that he could do better writing on another exercise, or even on another day, but the test is to see what he can do on this particular topic at this particular time. If he has a *permanent skill* in writing, he need but use it. The exercise will not be the emotional experience that writing about *The Brook* would be, but it yields a better index of the student's ability, because it restricts him more by ruling out inspiration, liberality, and other confusing side issues. In so far as possible, the student should have an obvious purpose in writing. He should write to say something, not to use 350 words without making an error. He should be just as intent on getting the reader to understand his meaning as he is in the history examination. He should concentrate on what he is saying, relying on his established habits of writing to supply the framework.

The writing exercises must be read in a more efficient way than they are customarily read. Letter grades, with their absolute literary significance, should not be used. A single piece of writing should be evaluated on the basis of several criteria which are adjudged by competent teachers as significant. For example, a paper could be assigned one grade for the quality of its organization, a second grade for coherence, a third for mechanical perfection, and so on. These categories are merely suggestive; others could be added or substituted by the experts who determine what the significant characteristics of good writing are. The final grade of the paper would be the sum of these part scores. Furthermore, a specific grade on any one category would represent a clearly defined type of paper. If organization were one of the factors to be evaluated, for example, the readers would agree that a paper organized in any one of several equally good ways

would receive the top score on organization. A paper which departed slightly, in specified ways, from these acceptable methods would be graded less, and so on through the range of scores. The reliability of the reading carried out on this basis must be, and is, high. Schemes of this nature have been used with success, and reliabilities as high as .95 have resulted, without, according to the testimony of the readers, a sacrifice in validity.

* * *

The problem of the English examination is to develop exercises which call for actual writing and which demand an adequate sample of the *permanent writing skill* of the candidate. The exercises must deal with the important and vital aspects of writing. They must tap the candidate's *regular habits of expression*. The solution of this complex and baffling problem awaits the co-operative efforts of the test technicians and the English teachers. The English masters must define and delimit their field. The technician must aid through suggesting procedures which will yield stable results containing as small an error as possible, and which at the same time satisfy the masters. The problem is a large one, but already some signs of a serious concerted attack on it are to be noticed.

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The Program of the American Council on Education

I HAVE been invited to speak on this occasion about the program of the American Council on Education. Such would seem to be a relatively easy assignment, but in preparing this statement I have not found it such. This is not said in any sense to alibi for what may be presented, but rather as an introduction to the discussion of a program which has unusual aspects. During recent months particularly it has been borne in upon me that it is impossible to describe the program of the American Council on Education as one usually can describe the programs of other educational organizations.

Some light is shed on the Council's undertakings by a knowledge of its origin. Established in 1918, during the World War, it came as an outgrowth of a meeting of prominent educators representing various national educational associations, held to discuss the question of what possible contribution the schools and colleges could make in the national crisis that confronted our country.

Then called the Emergency Council on Education, its first stated objectives were:

1. To place the nation's educational resources more completely at the service of the national government.
2. To obtain a continuous supply of educated men. (This of course in the face of the demands of war which above anything else consumed manhood power in military assignments.)
3. To meet more effectively the educational problems arising during and following the World War.

The Emergency Council was composed of representatives of the following national educational associations:

American Association of University Professors
Association of American Agricultural Colleges and Experiment Stations
Association of American Colleges
Association of American Law Schools

Association of American Medical Schools
Association of American Universities
Association of Collegiate Alumnae
Association of Urban Universities
Catholic Educational Association
National Association of State Universities
National Council of Normal School Presidents and Principals.
National Education Association
National Education Association—Department of Superintendence
National Research Council
Society for the Promotion of Engineering Education.

The usefulness of the Council in its initial days is attested by the following activities, all of which were contemporaneous with our participation in the great war:

The President of the United States asked the Council's assistance in the nation-wide campaign in behalf of American education.

The Surgeon General of the United States Army used the Council's machinery in enlisting 10,000 young women for preliminary nursing training.

The Council of National Defense asked the Emergency Council on Education to take official charge of the British Educational Mission when the latter visited this country.

The federal government urged the Council to assist in developing closer relations with French and Spanish educators.

After operating a little less than a year, the name was changed from Emergency Council on Education to that of American Council on Education. This was done because of the recognized need for large co-operative efforts educationally within the nation in time of peace as well as of war, and to establish an agency that would develop better relations with educational institutions abroad.

At the same time that the name was changed the basis of membership was broadened so as to provide in the roster for approved colleges, universities, and technological schools. There was added also a new group called associate members.

the latter being organizations of related interests, such for example as the American Alumni Council, the American-Scandinavian Foundation, the National Research Council, the United Chapters of Phi Beta Kappa, and about two score other similar organizations.

Again in October, 1935, in order that the Council might include representatives of the entire American educational system, as we call it, membership was opened to state departments of education and to city school systems serving populations of 200,000 or more. During the fiscal year closing April 30, 1936, the membership of the American Council was enlarged by 103 educational institutions and organizations, an increase of 38 per cent. The present membership list includes:

Constituent Members.....	29
Associate Members.....	28
Institutional Members.....	326

At the inception of the Council, as we have seen, the program was distinctly one sicklied o'er with the consciousness of war. Since that time the number of activities which have been included have increased year by year, and the scope of educational interests covered has constantly widened. In order to give you some idea of the range that is now included, as well as the character of the projects, may I enumerate some in which the Council is now engaged as well as refer to others that have been completed.

The American Youth Commission, begun in 1935, is a study to be extended over a five-year period. It is subsidized by a grant of \$500,000 from the General Education Board, has its own group of directors, the head of which is Mr. Newton D. Baker, and is directed by Dr. Homer P. Rainey.

Adolescence under present economic, social, and political conditions is without doubt the most crucial problem in American life. The increased age of productive employment, coupled with inadequate educational and recreational opportunities, aided and abetted by the vanishing economic frontier,

has created crucial problems for youth in this country which have already manifested themselves in alarming ways and which are even more gravely portentous for the future. The problems are so complex that only by careful study of the underlying causes and their interrelations can we hope to avert tragedy for thousands of our young people, and danger to our national existence. It is both timely and appropriate that an agency such as the American Council should undertake a comprehensive study of a problem at once so large and so menacing to the foundations of American civilization. Without question this is one of the most important projects which the Council has yet undertaken.

The Financial Advisory Service, begun in 1935, is carried on under the general supervision of Lloyd Morey, comptroller of the University of Illinois. Its facilities are available to all colleges, universities, and other educational agencies in the United States.

Motion Pictures in Education was established in 1935. The motion picture is one of the most powerful educational devices that has ever been invented by the human mind. Within a decade or so motion pictures, mainly made by commercial interests for theatrical exhibition, have usurped large and important areas of education formerly divided between the home, the church, and the school and library. "Movie-made children" is a popular phrase which carries more than enough truth to alarm even the most complacent educators. Much of the influence of the movies has been good, but much of it has been bad. The problem of increasing the good influences of the movie, and of exploiting its almost incalculable educational resources, requires a great deal more than identifying and eliminating its bad features. An exploratory study, such as this committee is making, with emphasis on the constructive side as opposed to negative criticism, will lay the foundation for genuine advance in using the enormous educational potentialities of the motion picture.

The Modern Foreign Language Study has been progres-

sively developed over a long period by a committee under the chairmanship of Professor Robert H. Fife. It is an investigation of the technics and methods of teaching foreign languages, and seventeen volumes have already been published and distributed under its supervision. A recent additional grant to this committee makes possible the continuance of its work.

The Educational Finance Inquiry is a report of fifteen volumes in which are set forth scientific methods of financing public education. It was made under the direction of Dr. George D. Strayer. To augment this study the Council recently published the report of the National Survey of Finance, which was directed by Dr. Paul R. Mort.

The Committee on Materials of Instruction under the direction of Dr. Charles H. Judd has produced a series of six monographs relating to the social studies of elementary and high schools.

The Committee on Personnel Methods has been very active for over ten years. The fundamental objectives of this committee has been to devise ways and means to enable schools and colleges to ascertain and meet the needs,—educational, personal, and social,—of individual pupils, whatever the needs happen to be. This is the ideal of educational guidance and the purpose of personnel administration. Since many of the most serious problem cases are caused by undetected and uncorrected academic maladjustments, the committee early emphasized the need and feasibility of providing and using curricular achievement tests. If the tests produced by the Co-operative Test Service are used as they should be used, we should no longer find pupils in college struggling vainly with a collegiate curriculum while their vocabulary is still below the 9th grade and their reading skills below the 7th grade levels. Such situations, which are now too frequent, are wasteful, and lead to many frustrations and serious educational disturbances. Here we are concerned with one of the major sectors of the youth problem, one in which the schools

and colleges can make their greatest contribution to the most crucial of all national problems. This committee is primarily responsible for initiating the recent volume on "Construction and Use of Achievement Examinations," prepared under the authorship of Dean Herbert E. Hawks, Professor E. F. Lindquist, and Dr. C. R. Mann. Quoting from its introductory pages:

This volume is an attempt to bring to the attention of teachers and administrators, so far as can be done in so narrow a compass, a survey of the principles that lie at the basis of any system of examination making that deserves the name, and to describe in some detail sound methods of test making in the various subject matter fields.

* * *

The volume is aimed particularly at the needs of the classroom teacher in schools and in the first two years of college. It is hoped that it will serve not only to assist the teacher in the actual process of producing examinations that will accomplish their purpose better than would otherwise be the case, but also to ground him in the type of objective results and principles that lie at the basis of examination making.

As you doubtless all know, the Committee on Personnel Methods has always worked in close co-operation with the Educational Records Bureau, which is the organization mainly responsible for inaugurating the series of fruitful conferences, of which the present one is the fifth.

Other active committees of the Council are:

Committee to Co-operate with the Education and Law Conference, Dr. C. R. Mann, Chairman

Government and Educational Finance, Dr. John K. Norton, Chairman

Government and Educational Organization, Dr. A. B. Meredith, Chairman

International Aspects of Education, Dr. I. L. Kandell, International Institute of Education, Chairman

National Legislation, President Cloyd H. Marvin, Chairman

Relation of Emotions to the Educative Process, Dr. D. A. Prescott, Chairman

Committee on Standards, President Raymond Walters, Chairman

Advisory Committee to National Resources Committee, President E. C. Elliott, Chairman

The *Committee on Measurement and Guidance* is, however, the one whose work is probably most widely known. As organized at present, its function includes those of two former committees, one on Measurement and Testing and the one already mentioned on Personnel. Thus, both the Co-operative Test Service and the Educational Records Bureau have interests at stake here. The present committee is also sponsoring the use and further development of the American Council Psychological Tests, prepared by Professor and Mrs. L. L. Thurstone, for high school seniors and college freshmen. These have been given to nearly two million individuals since this part of the program began.

As an agency devoted to scientific inquiry, to the provision of machinery for consultation, and to the stimulation of experimental activity in education, the Council, since its inception, has been concerned with problems of measurement and evaluation, and has attempted to assist in the development of tools for use in this field. As a result there have been not only the psychological tests and those developed under the Co-operative Test Service, but also those prepared by the Committee on Modern Foreign Languages. The Committee on Personnel Procedures which was established in 1925 has been directly interested in scientific measurement and individual guidance. The cumulative record cards and personality rating scales were basic developments in this area. The Co-operative Test Service, under the direction of Dr. Ben D. Wood, has been the most extensive organization which the Council has sponsored in this entire field.

In October, 1935, the Council set up a special *Committee on Review of the Testing Movement*. The committee was

requested to consider and report on the validity of the co-operative testing service in the light of the present developments in the testing movement, its relation to other testing enterprises now in operation, and in general the place and function of measurement and evaluation in the educative process. The committee so set up reported back to the Council on April 29, 1936, recommending that there be established a Commission on Examinations and Guidance, to include the functions which for five years had been carried on by the Co-operative Test Service. It also recommended that research and experimentation should be carried on in relatively new or inadequately covered parts of the field, such as the evaluation of personality, aptitudes and attitudes, and mental and emotional traits.

The new Committee on Measurement and Guidance has been asked to carry on certain phases of personnel work, and is continuing the program of the Co-operative Test Service. In connection with the latter, the tests and assistance formerly available will be still accessible to those schools and colleges wishing them. In addition there are contemplated a limited number of concentrated state-wide testing programs to be assisted by this committee but conducted under the authority of appropriate state educational agencies.

In the September 16 issue of the Ohio State University *Educational Research Bulletin*, your own well-known colleague, Dr. Ralph W. Tyler, discusses "Needed Research in the Field of Tests and Examinations." He says that,

Nowhere to my knowledge has there been a systematic attempt to list all of the kinds of behavior important for educational purposes. . . . Few attempts have been made to formulate a comprehensive list of objectives for the entire school. . . . Research concerned with identifying the types of behavior to be appraised needs to deal with a second aspect of the problem—the classification of behavior into types and the degree of specificity to be sought. Research is greatly needed in devising means for appraising each important type of behavior.

The committee of the American Council on Education, which was appointed one year ago and reported last April, was unanimous in the expression that among the matters with which the Council should concern itself in its program of testing and measurement should be the very features which are pointed out by Dr. Tyler in the references just made. The organization recently set up by the Council, and still to be expanded, has definitely in mind the attempt to make some progress in this very direction.

But the committee which has the most determining power concerning the Council's program is the *Problems and Plans Committee*. Its chairman is Chancellor S. P. Capen. Other members are:

President E. C. Elliott
Dean H. W. Holmes
Mr. John H. McCracken
Dr. C. R. Mann
Professor Mark A. May
Professor Paul R. Mort
Principal Eugene R. Smith
Dr. Payson Smith
Superintendent Paul C. Stetson
Dean George D. Stoddard
Commissioner J. W. Studebaker

Although all proposed projects must be approved by the Executive Committee before they can become part of the Council's program, nevertheless it is in the Problems and Plans Committee that the most important decisions are made. The committee meets four times a year, devoting usually two days at each meeting to deliberation. Here really is where the fundamental policies of the Council as well as the major features of its program are determined. What projects fall within the proper range of the Council's function? Of those appropriate for the Council's action, which are most needy, which most feasible of solution? What are the proper methods to be pursued in carrying out the cam-

paign? Where are the probable sources of necessary financial support? These are among the far-reaching questions considered by the Committee on Problems and Plans. The very name of the committee is significantly suggestive of what it does.

So far I have told you of some things which the Council has done or is doing. May I turn next to what the Council is contemplating doing. Here, of course, is where the Problems and Plans Committee stands out in bold relief. The ramifications of this committee's considerations are expansive and divergent. This fact is illustrated by the names of the subcommittees that are actively engaged in their several fields of operation at present. These subcommittees are:

- Academic Freedom and Social Responsibility
- Co-operation among Institutions of Higher Education
- Occupational Training and Vocational Adjustment
- Place of Radio in Organized Education
- Research Fellowships and Grants-in-Aid of Research in Education
- Study of Business Education
- Study of the Master's Degree
- Teacher Training Problems

To fill in the outline of the American Council's program one other activity must be mentioned. It is that of publications. There are two that stand out above the others in respect to continuity. First is *The Educational Record*, the official organ of the Council, which has appeared quarterly since January, 1920. The other is the handbook, *American Universities and Colleges*. It was published first in 1928, revised in 1932, and revised again in 1936. It contains detailed information concerning American institutions of higher education on the several accredited lists, as well as statements of general developments in education. The only volume of its kind covering American institutions, it has come to be a standard book of reference not only in this country but also abroad.

Other publications are the *Construction and Use of Achievement Tests* which has been previously mentioned, the *Educational Finance Inquiry*, the *Study of Graduate Schools*, and the series entitled *Materials of Instruction*. So important has this activity become that the Executive Committee at its meeting a few days ago adopted the recommendation of President Zook and provided for the appointment of members of the present staff, one as editor and one as assistant editor, and for an editorial committee of the Council.

I hope that this factual recital has not bored you. It seemed to be the only means by which I might present to you a reasonably informative as well as an intelligent concept of the program of the American Council on Education. The present statement of the aims of the Council will be much more meaningful with the realistic background which is now before you. This statement is:

The object of the Council shall be to advance American education in any or all of its phases through comprehensive, voluntary, co-operative action on the part of educational associations, organizations, and institutions, and in the fulfillment of that principle to initiate, promote, and carry out such systematic studies, co-operative experiments, conferences, and other similar enterprises as may be required for the public welfare.

With these factual statements in mind and in the light of this statement of aims, a few interpretative remarks may be in order as a final part of this presentation.

If one examines the programs of the various educational organizations in this country, national or sectional, college, university, public schools, professors, administrators, public school teachers,—he will be impressed by one thing. Each of these organizations sets out to accomplish specific purposes. Sometimes it is to increase the membership; sometimes it is to collect the dues; always it is to consider those problems of whatever character that are more or less peculiar to the special group which constitutes the membership of the organization.

One going to an annual meeting of a national or sectional association can with a fair degree of accuracy foretell the scope of the program which he will hear.

I do not wish to be understood as criticising this situation. Such organizations have their places. They accomplish much good. But what about the needs that don't fit into any such program? These are those from which are being selected the projects that become parts of the program of the American Council.

A second characteristic is that it may undertake anything it chooses. Its program is not set. Let me hasten to add that the American Council on Education seeks in all that it undertakes not to duplicate the work of any existing agency. At the same time it can and does cut across the areas, so to speak, of existing educational organization. For example, in connection with teacher training, a phase in which the Council has been more recently engaged, schools are interested from the nursery through graduate training. Again tests and measurements are increasingly becoming the interest of persons engaged in education on all levels.

There is also the field which has been very largely unoccupied, that of international relations in education. While many of us in school work believe, and perhaps even teach, internationalism in civil and political relations, by our practice we have become increasingly nationalistic.

A third characteristic of the program of the American Council of Education is that it undertakes long time projects. Witness the Co-operative Test service, a ten-year project; the work of the Foreign Language Committee, which though not stipulated for any particular period has now extended itself over a number of years; the Youth Commission, which was set up for a five-year period.

Someone will immediately reply that other educational associations are doing this same sort of thing. With such a statement in truthfulness I must agree. But there are at least two differences between such programs carried out in other

educational organizations and those conducted by the American Council. One is that it is not typical of the programs of the other agencies to set up long-term projects; but it is indigenous to the character of the work which the Council has done since its inception. The other difference is that the Council, by reason of its membership as well as the character of its program in general, occupies a peculiar relationship to other educational agencies in respect to its own long-term projects. It may complete these projects, if it wishes to do so, as it has done with several of them. On the other hand, with a greater freedom than any other educational organization it may seek to pass on the administration of a service from itself to some other organization. Witness the Personnel Service Division which was set up and operated as a service for the registration of persons desiring appointment to college teaching positions. When this service was discontinued in 1929, the service to some extent was taken over by the Appointment Service of the American Association of University Professors.

Again the program of the Council is co-operative by the very nature of the organization of the Council itself, and of the predominating type of project falling within the program. As an illustration of this point, may I call your attention to the First National Conference on Educational Broadcasting which is to be held in Washington December 10, 11, and 12. The announcement of this Conference states that it is in co-operation with the United States Office of Education and the Federal Communications Commission. This announcement also carries the names of eighteen different organizations which are sponsoring this Conference. The fact of the matter is that by far the greater part of the work in preparation for this meeting has been done by the vice president of the Council, Dr. C. S. Marsh. The Council is perfectly willing that it shall not be credited with any particular service in the announcements which are circulating concerning this Conference. I mention the event as illustrative of the type of co-operative activity in which the Council engages.

There is another type of co-operation in which the Council has been fortunate and happy. It is in securing the services of persons not in education. You have already been told that Mr. Newton T. Baker is chairman of the American Youth Commission. Mr. Owen D. Young is vice chairman. Less than one hour before coming into this meeting, President Zook succeeded in tentatively enlisting the actual interest of Mr. Walter Lippmann in an activity which the Council anticipates undertaking.

In contemplating or in engaging upon any project the Council sustains a peculiarly independent relation. It does not need to think of how any activity will affect it as an organization. Its primary concern, as is set forth in its statement of aims, is the public welfare. Not claiming for itself any superiority above other organizations, at the same time it strives to exercise an overview of the numerous educational activities, organizations, and fields. It seeks to exercise an influence through causing nation-wide attention to be centered upon certain problems by selecting these items for consideration. In general, it considers it has a right to enter any educational field, not properly occupied, that is within its technical competence.

At the same time the Council does not assist in raising funds for individual institutions or associations. It does not endorse movements, organizations, or drives. It seeks distinctly to shun questions which have any political complication. It refuses to be a middleman between persons who have projects and foundations or other sources of financial support. Its function is to look over the educational field to see what is most in need of being done that is not being done and to search out those problems almost unthought of but which are fundamental to educational progress, then to state these larger problems and set upon their solution.

All of us, I am sure, have faced the question of what educational organizations to join, and the even more pointed one of which to attend. There are so many with which we should

like to continue affiliations because all seem so worth while. But choices must be made.

In the entire list there is no other quite like the American Council on Education. Certainly more than any other and by means that are not employed elsewhere, it is a center of sensitivity to the main movements going on in all the fields of education, and to the major activities under way in these fields. It must maintain this relation in order not to duplicate what is being done by someone else.

To acquaint one's self with the detailed program of the Council serves, therefore, a twofold purpose, and above all tends to give one a perspective of American education which certainly is not excelled, if indeed it is equalled, by any avenue.

RAYMOND A. KENT,

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Chairman, American Council on Education

Changing Values in Educational Measurement

I SHOULD like, first of all, to express my appreciation for this opportunity to attend and participate in this conference. As some of you may know, we have in Iowa our own version of your Educational Records Bureau program, which we call the Iowa Every-Pupil Testing Program. I am glad to confess that many of what we consider to be the best features of our program have been patterned after or suggested by the excellent organization that you have effected in the Educational Records Bureau. These annual meetings, therefore, represent to me an opportunity to become more intimately acquainted with this organization and to secure from your discussions further ideas which may be taken back to Iowa for the improvement of our own services.

It has been my good fortune to attend all but one of these annual meetings. In all of these meetings I have been particularly impressed by the apparent unanimity with which the members of this conference have adopted a certain point of view concerning educational measurement. This point of view, as nearly as I have been able to sense it, may be expressed in the following three statements:

First, that the basic problem of the school is to provide for each boy and girl those learning experiences and opportunities which, in light of general educational aims, are best suited to his or her peculiar interests, needs, and abilities. In other words, that education must be primarily concerned with the individual, in full recognition of the great variety and magnitude of individual differences.

Second, that accordingly the first responsibility of the teacher and of the school is to become intimately and reliably acquainted with each pupil, in order that instruction and guidance may be best adapted to his particular requirements—a

responsibility which transcends even that of thorough familiarity with the subject matter taught.

And *third*, that the major purpose of all educational measurement, of standardized tests and testing programs, is to enable the teacher and the guidance official to base this acquaintance upon reliable, objective, and comparable information as free as possible from the usual errors and biases of subjective opinion. Or, in other words, that the major values of educational tests are their values in educational guidance and in the adaptation of instruction to individual pupil needs.

I hope I have made no mistake in this interpretation of your own ideas, since, without making any attempt to defend this point of view as such, I shall concern myself with certain of its practical implications for the use and interpretation of test results in the school situation.

From this point of view, one of the most significant developments in educational measurement in recent years has been the rapid growth of state and regional co-operative testing agencies, such as the Educational Records Bureau and the Co-operative Test Service. The significance of this development lies in the fact that these agencies have made possible, for the first time, the really effective use of test results in educational guidance and in the specific adaptation of instruction to the needs, interests, and abilities of the individual pupil. Let us consider first the basis of this contention, particularly with reference to the problems of instruction and guidance at the high school level.

Just prior to the appearance of these agencies, say in the late 1920's, there were available for use in the secondary school some 500 published standardized tests of educational achievement. While these included a few tests of excellent technical quality, as judged by existing standards, the great majority of them were hastily constructed, inadequately standardized, and full of technical imperfections—a situation perhaps partly accounted for by the excessive commercialism which up to that time had characterized the production and

distribution of standardized tests. Because these tests were only very rarely accompanied by any adequate or trustworthy evidence of their relative validity, and because there were no criteria of validity that could be readily applied by anyone not technically trained, the ordinary test user was unable to make any intelligent selection from this bewildering mass of test materials. Even if he had been able to select and use the best of available tests in each field, it would still have been impossible for him to combine the measures derived from them into any meaningful description of the individual pupil for use in educational guidance. The effective use of test results in guidance depends, above all, upon high comparability among the various measures obtained, a characteristic which at that time was conspicuous only by reason of its absence. With very few exceptions, the tests were constructed independently of one another, by different persons, at different times, and in different places, with no view to their possible uses in combination in an integrated program. The norms for the tests were similarly independently established, each for a different group of schools, at a different time, and under different conditions; often they even differed in kind. Only very vague descriptions, if any at all, were provided of the types of schools used in establishing these norms or of their geographical distribution, while the numbers of cases employed were in most instances insufficient to make the results reliably representative of the level of achievement in any school organization or in any region. This situation was perhaps inevitable under a system which relied so much upon scattered individual initiative, and to some degree upon the profit motive, for the sporadic and independent production of test materials. I should like to make it clear, however, that this rather severe indictment of earlier testing practices does not contain any implied criticism of the professional integrity of many of the test authors, some of whom were doing the best that they could under prevailing conditions and were very keenly aware of the difficulties which they faced.

It is fairly obvious to us now that the test results thus obtained possessed only very limited possibilities for use in guidance. Very little meaning, for example, could be derived from the knowledge that on one test Johnny Jones ranked above the norm established for one vaguely defined group of schools and pupils, and that on another test he ranked at the norm established for another group, also vaguely defined and perhaps quite dissimilar from the first in geographical location, in types of school organization represented, and in general level of achievement. Such data could hardly be employed for determining reliably the special aptitudes, needs, and accomplishments of the pupil in the various areas of his intellectual development, nor for measuring relative growth in these areas over a given time period. It is not at all surprising, then, that the schools at that time were making little if any effort to maintain cumulative individual records of test results, that little was being "done about" the mass of test data that had been collected, or that the entire testing movement was beginning to suffer from a very definite reaction to its earlier phenomenal growth.

Fortunately, thanks to organizations such as the Educational Records Bureau and the Co-operative Test Service, this confused situation in educational testing no longer exists, except perhaps for those schools that have not yet availed themselves of the services of these or similar agencies. It is now possible for schools in almost any part of the country to procure a highly integrated set of tests, collectively capable of describing the intellectual achievement or educational development of the high school pupil in nearly all of its more important aspects, and in terms of measures which are highly comparable from test to test. Before explaining further how this has been accomplished, I should like, if I may, to take time out for a brief discussion of the nature and purposes of test norms.

Test norms, in general, are intended to serve two major purposes. One of these is to facilitate the interpretation of

the scores made on a given test, independently considered. The other is to make possible comparisons between scores on different tests.

To illustrate the first of these purposes, we may note that the statement that Johnny Jones made a score of 60 on a certain test is in itself almost meaningless. To interpret this performance, in the absence of any absolute standards of achievement, we must know how it compares with the performance of other pupils. We must know also what these "other" pupils are like; that is, we must know to what "population" they belong. The meaningfulness and dependability of a norm with reference to this purpose, then, depends, first, upon the nature of the "population" for which the norm is established, and second, upon the reliability with which it represents that population. There are, of course, any number of populations for which a norm might be established. We might, for example, try to establish a norm for all ninth grade pupils in the United States, or only for ninth graders in the public schools of the Middle West, or only for pupils in the private secondary schools on the Eastern seaboard, and so on, almost without limit. Clearly, the norm used in interpreting the performance of a given pupil should preferably be one established for a population to which that pupil belongs and which is highly homogeneous in character. The test performance of a given private-school pupil, for example, can be most meaningfully interpreted in relation to the performance of pupils in other private schools, all of which are fairly well known to one another and all trying to accomplish similar purposes under similar conditions. Highly generalized norms based upon very large and widely distributed and heterogeneous populations tend to lose specific meaning because of their very generality. The more homogeneous the population, then, the more meaningful the norm established for it. Furthermore, for the sake of reliability, the norm should be based upon a large and representative sample of pupils from the population in question, all tested at the same time

and under the same carefully controlled conditions. Finally, the norm should have been recently established and therefore representative of what is being currently achieved in the population involved.

The second general purpose of test norms is to make possible valid comparisons between scores on different tests. From the point of view which I expressed earlier, this is by far the more important of the two purposes considered. If valid comparisons may not be made between separate test scores, it is, of course, impossible to establish an educational profile for a pupil or to maintain a meaningful cumulative record of his test performances. The important consideration in relation to this purpose is that the norms for each of the tests between which comparisons are to be made be established for the *same* pupils and under the *same* conditions. That is, all norms must be established for the same population. The exact nature of the particular population used becomes, in this case, of relatively minor importance. In interpreting an educational profile or a cumulative record, we are primarily concerned with *relative* achievements, with the high and the low points in the profile, or with the specific areas in which the pupil has shown relatively high or relatively low aptitudes or abilities. In interpreting such results, in fact, we need hardly refer to the *scale* at all, so long as we know that the *same* scale has been employed throughout and that the various measures are therefore comparable. To repeat then, so far as *comparability* is concerned, the major consideration is that the norms for all tests be established for exactly the same group of pupils and schools, with all tests administered under the same carefully controlled conditions.

It should be clear that in explaining these technical requirements of adequate norms I have described, in all essential detail, the types of norms that are now being provided by co-operative testing programs such as the Educational Records Bureau program. It is in the establishment of such norms,

and in thus providing for the comparability of results that is so essential in educational guidance, that these programs have made one of their most definite contributions to educational measurement.

A second major contribution of these agencies, fully as important as the one just considered, has been the vast improvement effected in the quality of the test materials for which the norms are established. As I pointed out earlier, it would have been practically impossible, just a few years ago, to have selected a complete *set* of tests, representative of all the various areas of achievement at the high school level, for which it would have been at all worth while to attempt to establish norms of the type that I have described. The tests then available varied too widely in quality and form and in administrative features. In contrast to this situation, we can now obtain, through the agency of the Co-operative Test Service, a comprehensive set of tests all of which have been recently constructed under central supervision, which are therefore highly consistent in quality and in administrative characteristics, and which are all representative of the most recent advances in the techniques of test construction and all definitely constructed for co-ordinated use in wide-scale testing programs.

The provision of better tests with highly comparable norms does not by any means constitute the only contribution of these co-operative agencies. In addition, they have transferred the construction and distribution of tests from a commercial to a strictly professional basis, which in itself seems to me to be highly desirable. They have permitted the co-operating schools to delegate to groups of highly trained technicians the responsibility for the selection or preparation of the test materials needed. They have relieved the schools of much of the burden of the statistical analysis of test results, and in some instances also of the onerous burden of scoring the tests, thus freeing the teacher and the school official for tasks more appropriate to his abilities. They have, furthermore, provided a ready source of expert advice and counsel concerning

the peculiar local problems of the co-operating schools. In these and in many other ways, they have facilitated the most economical and effective use of test materials.

I shall not take time for any detailed consideration of these additional contributions. While I do believe it is well for us to remind ourselves, now and then, of the various values which we are deriving from agencies of this type, I have certainly not come here simply to extoll the virtues of the Educational Records Bureau or any similar organizations. On the contrary, I have drawn attention to the ways in which these agencies have so greatly increased the possibilities of tests for use in educational guidance only in order that I might better emphasize how seriously we have fallen short of the *realization* of these possibilities in actual practice. My principal purpose in the remainder of this paper will be to draw to your attention certain prevalent practices which are directly *interfering* with the use of test results to their best advantage in educational guidance.

One of the more serious of these obstacles to the best use of test results arises out of the conflicting character of certain of the major purposes for which tests are generally employed. The most significant of these purposes, as I have already presumed you will agree, is to describe individual differences in achievement. However, any test that reliably describes differences between individuals may also be used to describe differences between groups of individuals. To the extent, then, that such group differences are due to corresponding differences in the instructional effectiveness of the teachers and methods of teaching employed, test results may also be used for the evaluation of instruction, with reference both to the individual teacher and to the school as a whole.

In many of the schools now participating in co-operative testing programs, this latter use has been given major prominence. Certain of these schools, it seems, have participated in these programs primarily in order that they may discover how the *average* test performance of their pupils compares

with averages earned in other schools, or to learn in which subjects or under which teachers in their own school the highest average scores were earned, with the implication presumably that the best schools and the best teachers are those which obtain the highest average test performance from their pupils. The degree of interest shown in such comparisons varies, of course, from school to school, but there are very few situations in which some concern is not evidenced about school-to-school and class-to-class comparisons based upon average scores.

From the point of view taken in this paper, these practices are unfortunate, particularly because they create in the classroom teacher an attitude toward the tests which directly interferes with effective use of the results in pupil guidance. In the long run it is the classroom teacher who must assume most of the responsibility for the educational guidance function. The majority of schools are not likely, at least in the near future, to find it either practicable or desirable to delegate this function exclusively to special guidance officers. The guidance officer type of program, furthermore, is too much restricted to the long-time aspects of guidance—to the counseling of students concerning future plans and vocational careers, and to the treatment of special problem cases—those aspects of guidance, incidentally, with which we are least confident of our ability to cope. The most significant and practicable type of guidance, at present, is that which consists of the *immediate* adaptation of instruction in the classroom situation. It is the type, for example, in which the teacher of ninth grade English recognizes, partly on the basis of test results, that Sally Smith has already mastered the mechanical aspects of English correctness, and that she should therefore be excused from routine drill requirements and permitted to devote more of her time to free reading or creative writing. Again, it is the type of guidance in which the teacher of physics discovers that Freddy Clark's impending failure may perhaps be due primarily to his lack of

mathematical ability and that he should therefore be given special remedial instruction in mathematics in connection with his work in physics. Again, it is the type of guidance in which the teacher of English composition discovers from his cumulative test record that William Brown has a highly developed interest in and wide knowledge of practical science and that he may best be motivated to acquire correct writing habits if he is encouraged to write themes on scientific subjects.

If test results are to be used in this way, teachers *must* be made to look upon tests as devices intended to *help* them in the daily performance of their instructional tasks. Undue emphasis upon *average* test results, upon school-to-school and teacher-to-teacher comparisons, and upon the use of tests in the evaluation of instruction or for the rating of teachers, may cause the teachers to regard the tests with distrust and suspicion as instruments that may be used *against* them, to neglect the interests of the pupils, and to be concerned instead with subject matter objectives and with higher average scores for their own sake. In the desire to appear to greater personal advantage in these comparisons, teachers may tend to become unduly concerned with the amount of subject matter that they can get across to their pupils, regardless of the needs of the individual students for that subject matter. Or, again, the teachers may study the *tests* in order to teach *for* them more effectively, rather than study the *results* obtained from the tests for what may be learned about the pupils individually. Under this influence, for example, we sometimes find teachers trying to teach more and more plane geometry to their pupils, or insisting that all their pupils acquire more and more information about ancient history, whereas what many of the pupils really need may be less plane geometry or history and more of something else better suited to their needs and abilities. The very instrument that is intended to help the teacher best serve the interests of his pupils may thus sometimes be used with just the opposite effect in actual practice.

In fairness to the testing movement, it should be noted that this tendency on the part of teachers to think in terms of subject matter objectives, rather than in terms of separate objectives for individual pupils, existed long before tests were used as they are now, and perhaps today is almost as strong in schools that have consistently refused to use standardized tests in any form as in those that are participating regularly in co-operative testing programs. The worst that can be said for the testing movement in this regard is that it has in some instances aggravated an undesirable tendency which would in any event be present—a limitation which has been more than compensated for by the many other positive values in testing.

I have not intended to imply, in drawing attention to the incompatibility of the major purposes of testing, that standardized tests should *not* be used for the evaluation of instruction, or that the school head or principal should show no interest in school-to-school and class-to-class comparisons. On the contrary, these must be recognized as quite legitimate uses of test results, as uses which have been greatly facilitated by the improved types of norms now provided through co-operative organizations in testing. The real issue is one of *relative emphasis* rather than an all-or-none proposition, and the problem presented is one primarily for the school *administrator* to handle.

The degree to which teachers will be adversely influenced by testing programs in the manner that I have indicated will depend upon the recognized policies of their administrative heads in the interpretation of test results. If the school administrator makes it generally known that the average scores obtained by the pupils under each of his teachers are being used by him as a basis for teacher evaluation, if he makes it known that his principal interest is in school ranking and in teacher-to-teacher or subject-to-subject comparisons, then, of course, teachers will tend in self-protection to do what they can to secure higher test averages for their own sake. On the other

hand, if, in all of his discussions with teachers, pupils and patrons, the school administrator continually emphasizes the guidance values of the tests, and consistently refrains from mentioning any uses which he privately makes of the test results in the general evaluation of instruction, these undesirable consequences are not likely to ensue. In any event, the policies pursued by the superintendent or principal will in very large part determine the attitude which will be taken by teachers toward tests and testing programs, and the extent to which they will be disposed to use the results obtained from the tests in the interests of the individual pupil.

Perhaps, as far as the Educational Records Bureau schools are concerned, I have seriously exaggerated the importance of this issue. In our program in Iowa, and in other situations with which I am directly acquainted, I am convinced that it is of crucial importance. If, in your own use of the test results, this is not, after all, a real issue, I shall be only too glad to learn that I have wasted your time in discussing it.

Another factor which has seriously interfered with the most effective use of test results in guidance—and which I am sure has been evidenced here as well as elsewhere—has been the practice of nearly every school to allow its own peculiar curricular organization to dictate almost entirely the selection of the test materials to be used and the situations in which they are to be administered. In many schools it has never occurred to anyone that a test in general science, for example, may profitably be given to a pupil who has never “had” a course of instruction in that subject, or that a test in United States history may conceivably be administered anywhere else than in the history classroom, or that there is any need or place for a test the content of which does not conform to established subject matter boundaries. Let us consider briefly what are some of the consequences of this practice from the point of view of educational guidance.

If the description provided by test results of the relative achievements and abilities of the individual pupil is to be used

most effectively in educational guidance, that picture should, of course, be as *complete* as possible. As I have already indicated, the interpretation of an educational profile or a cumulative record is primarily a matter of noting *relative* performances, rather than of securing any absolute or *independent* description of achievement in a given area. For example, the fact that a certain pupil ranked at the 60th percentile on a test in first-year Latin has quite different implications for guidance if, in all other measures of his achievement, the pupil ranked above the 80th percentile than if his other performances were consistently below the 40th. Thus, the meaning of any one measure for guidance purposes depends primarily upon the availability of comparable measures in other specific areas, and the greater the number of these measures available, the more meaningful each of them becomes. If any single important aspect of the pupils educational development is omitted from or ignored in the description, there is always the possibility that this is the very area in which he most needs individual attention.

As tests are now generally employed, measures are periodically obtained for each pupil only in the formal subjects in which he *happens* at the time to be enrolled, thus leaving very significant gaps in his record as far as his total development is concerned. For example, under these conditions John Smith's test record for his tenth year might be restricted to the scores earned on a plane geometry test, a biology test, a second-year Latin test, and a test in the mechanics of correct English. This record, of course, will provide some indication of those fields among the few tested in which John showed the most promise, and some evidence of his general scholastic ability. Obviously, however, this record could not show, as might well be true, that during his tenth year, as a result of free reading stimulated by unusual aptitude and interest, John had developed very significantly in his knowledge and appreciation of literature or in his understanding of current social, political, and economic developments, or that he has a highly

developed interest in popular science not inclusive of biology. Furthermore, a cumulative year-by-year record of scores thus obtained could not constitute a description of progressive development, even within the areas concerned. For instance, the fact that a pupil earned a 90th percentile score on a standardized test in world history in his tenth year, an 82nd percentile score in American history in his eleventh year, and a 92nd percentile score in sociology, economics or American government in his senior year does not describe the progress that he has made in that aspect of his total development with which the social studies in general are concerned, and therefore cannot show how his growth in interest and achievement in this field compares with growth in other directions. Finally, we may note that because each of these tests would ordinarily have been administered just at the end of the formal course of instruction, and because a period of intensive review or coaching would often precede the administration of the tests, the measures obtained are sometimes unduly influenced by the immediate and often only temporary results of instruction, and may therefore not provide the best indication of the true relative status of the inherent abilities and more deep-seated interests of the student.

These objections, of course, in no sense constitute a condemnation of end-of-the-year use of achievement tests in formal subjects. The use of such tests is too well established to need any discussion here. These objections are only intended to point out the limitations for purposes of guidance of measures secured in this way, and to show the necessity (again from the point of view of guidance) of supplementing these measures with others of a different type and differently obtained.

Perhaps I can best indicate the nature of these other measures by sketching for you briefly some of the features of what might be considered an ideal program of testing for guidance purposes. First of all, the tests used in such a program would be concerned as directly as possible with the

desired ultimate outcomes of a general education, and would avoid placing any undue premium upon the temporary attainment of subject matter objectives, particularly where these are not clearly related to the pupil's needs. These tests consequently would disregard entirely the present arbitrarily established subject matter boundaries, or would conform to them in some instances only by accident rather than by design. For each of a number of broad but homogeneous areas of the pupil's intellectual development, (such as those concerned with understanding of social institutions and practices, with the physical and biological aspects of the pupil's environment, with the tools of quantitative thinking, and with literature and language), these tests would attempt to secure measures of the functional knowledge or the skills and abilities which the pupil had acquired without any regard to whether these abilities and knowledges had been acquired incidentally upon his own initiative or in formal courses of instruction. These tests, furthermore, would yield separate measures for the more important skills essential to successful school accomplishment, such as in the mechanics of correct writing, in reading, and in the uses of library and reference materials. An essential feature of this program would be that all of the tests would be administered annually to all pupils, regardless of the courses in which they happened to be enrolled at the time, and that the norms for all the tests would be established each year for the same stable population, thus rendering the results highly comparable from test to test and from year to year, and making possible the description of the relative growth of the individual in all the more important aspects of his total educational development. These tests would preferably be administered at the beginning of each school year, with no special preparation for them on the part of the pupils. The object of this feature, of course, would be to minimize the temporary, immediate effects of instruction and to emphasize the more lasting and functional values in what has been learned, as well as to eliminate the possibility

that the teachers would feel personally responsible for any average results obtained.

The most unique contribution of such a testing program would lie in the earlier and more certain discovery of those interests, aptitudes and accomplishments of the pupil which are not closely related to the formal content of special subjects currently being taken by him, and which are therefore not revealed by present tests. Such test results, furthermore, since secured early in the year, would make possible the immediate provision of individualized curricular and extracurricular activities that would further develop the pupil's established interests and abilities or supply indicated deficiencies and thus contribute at once to his well-rounded development. These provisions might sometimes take the form of immediate promotion in sequential courses if warranted by the pupil's abilities and past achievements. For example, if a student demonstrated at the beginning of the year that he was already highly proficient in the mechanics of correct writing, he might be allowed to skip the freshman or sophomore course in English and to go on at once to more advanced courses in that field. In addition to these unique contributions, of course, the test results could be used in guidance in all of the various ways in which present test results are being employed.

The values to be derived from a testing program of this type are by no means restricted to educational guidance. Being independent of formal courses of instruction and concerned with many outcomes that are the joint responsibility of all departments of instruction, these tests should exercise a valuable integrating influence upon the curriculum by counteracting the subject matter consciousness which now so thoroughly permeates high school teaching and which often results in undue complacency over results obtained in separate subjects apart from any consideration of the relative values to the pupil of the subject matter taught. Since the tests employed would ignore those subject matter objectives which

are retained in the present curriculum only by force of tradition, and since they would attempt to secure more direct measures of the ultimate outcomes of the whole instructional program, these tests should prove highly effective also for the over-all evaluation of that program, and should encourage a more critical and constructive attitude in curriculum reorganization.

The foregoing is admittedly only a suggestive and in part ambiguous description of an ideal in educational testing and guidance. The attainment of this ideal will be conditioned and perhaps retarded primarily by factors other than improvement in the technique of testing as such. Foremost among these factors is the absence of any authoritative and meaningful description of many of the desired ultimate outcomes of a general education. Until educators agree upon and describe in more meaningful terms the specific changes which education should bring about in the pupil, it is hardly to be expected that satisfactory instruments will be made available for the measurement of those changes. Nevertheless, a great deal of what I have suggested is now quite possible of accomplishment. Using only tests, techniques, and organizations that are now in existence, it would be perfectly feasible to attempt a program that would closely approach the ideal which I have tried to describe. Many of the tests now provided by the Co-operative Test Service are admirably suited to use in a program of this kind. Among these are the co-operative tests in English, literary acquaintance, literary comprehension, general mathematics, general science, and contemporary affairs. Other tests of this character could be readily supplied upon demand. What is needed most of all is increased disposition on the part of the schools to divorce the use of these tests from their own peculiar curricular organizations and to use them systematically for the more complete description of the individual pupil. The Educational Records Bureau has already gone much farther in this direction than has any other group of

schools in the country. The last report of the bureau contained some very encouraging data concerning the increased use of certain of the tests that I have just mentioned, many of which were administered in the fall of the year and apparently independently of the course registrations of the pupils. There seems to be good reason, therefore, to believe that the Educational Records Bureau schools will be among the first to approximate this ideal, and if, as before, other testing programs throughout the country follow their lead, we may shortly begin to realize more fully the greatly increased possibilities for educational guidance that these agencies have created.

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Testing and Guidance in a City Public School System

A PROGRAM of testing usually passes through three stages. The first is a promotional stage which involves acquainting administrators with the nature and value of new-type tests, and an attempt on the part of the administrators to arouse the interest and insure the co-operation of the supervisory staff and the teachers who must administer the tests and utilize the results. This stage usually requires two or three years, depending upon the principal.

The second stage is usually classified as research. It involves experimentation with the test materials and methods, and attempts to insure the proper use of the results by teachers and supervisors. During this period results are compared with those in other localities, magazine articles appear describing the research aspects, and principals and superintendents take considerable pride in being progressive and knowing the facts. This "crowing stage" is probably a necessary aspect of the development of a testing program, but during this stage the pupils receive very little direct benefit. This is not the fault of the tests but of the natural "lag" between the ideals of test makers and school administrators on the one hand, and the ability of teachers and principals or counselors to utilize the methods and materials on the other hand. Too frequently the tests are used merely as corroborative evidence to support administrative decisions and adjustments. This is not guidance, nor is it counseling. This stage usually lasts two or three years, but it may be prolonged indefinitely, depending on the principal.

The third stage has been reached when a testing program is no longer "a nine days' wonder," when the testing instruments have ceased to be charged to "research" in the budget of the Central Office and have become "instructional materials" charged to the budgets of the separate schools, and

when the testing procedures and records have been incorporated as an integral part in the administration, supervision, and instruction of the school. This stage has been reached in very few schools and school systems, but, until it has been reached and continued for a reasonable period of time, it is evident that the ideals of a testing program have not been realized. It takes at least three years for a record of growth to indicate clearly the tendencies of development.

In the Providence schools, testing programs in all of the elementary and junior high school grades have been a regular part of the school work for the past ten years and in the senior high schools for the past six years. Research is only an incidental by-product, rather than a main objective. In only the last two years, however, have test results been incorporated as an integral part of the school record of each child. This means more than devoting space on the record to test marks; it means providing a real record of growth which may be effectively used as a basis for pupil adjustment and guidance. It is unsafe and unscientific to predict results on any other basis than that of a *growth curve*. This is one of the chief values of the I. Q.; since it represents a *rate* of mental development, or in other words a *growth curve*, it has value for the purpose of predicting mental growth.

One of the most urgent and fundamental needs of all schools is that the usual administrative records, which are at present well-nigh worthless for guidance purposes, be transformed into scientific instruments for the continuous study of the individual differences of children, and that provision be made for an organized program of counseling so that these records may be intelligently used for the educational, vocational, and social adjustment of young people. One of the principal difficulties is that each principal is so well satisfied with what he has that he fails to appreciate the need of change and the possibilities of improvements in the field of modern personnel records.

But, no matter how perfect a system of personnel records

may be, the time and labor involved will be largely wasted unless a guidance organization and personnel has been developed that is capable of using them intelligently. For this reason it may be helpful if we trace the steps in the evolution of an organized guidance program in order that we may perceive general tendencies and locate more accurately both our present position and the general direction in which we are traveling.

There are "records of growth" of a guidance program as well as of an individual, and the growth concept is equally imperative.

In the first stage, provision is made for the guidance and adjustment of problem pupils at critical periods in their school careers. Such guidance and adjustment is the chief function of the principal or his various administrative assistants. It is guidance which is necessary or incidental to the administration of the school. For one reason or another the problems of the pupils interfere with the smooth running of the machinery of the school. There are the disciplinary problems, the failures, and the drop-outs at one end of the scale, and the problems of college certification, the honor awards, and the guidance of leaders in various activities at the other end of the scale. These problems demand and receive the attention of the principal, assistant principal, counselor, or dean. The majority of the pupils, however, the middle 60 to 80 per cent of the student body, receive little individual attention. Most high schools are still in this stage of development in their guidance programs. The only reason why the remaining pupils are not considered a problem is that we do not know enough about them and their problems do not become our administrative problems.

The second stage has come about by a better understanding of the principles and functions of guidance. In this stage the aim is to provide guidance for all pupils. Every child is a problem, or, rather, every child *has many problems*. In this stage of guidance the watchword is "every teacher a coun-

selor of youth," and the principal tries to share the responsibility for guidance with his faculty by delegating the guidance functions to home room and subject teachers. The subject teachers are expected to perform the functions of guidance which are incidental to effective subject motivation and instruction, while the home room teachers attempt to take a personal interest in each pupil and to perform the guidance functions which are incidental to the administrative work of the school. Such guidance, however, includes only those services which can be effectively performed by any *unselected* and *untrained* teacher, as a regular part of his or her instructional or administrative duties. If algebra or a foreign language were thus taught, as incidental to other functions, we should have no definite responsibility and little to show in the way of results. Almost every present feature of a home room guidance program was being carried on effectively by the best home room teachers twenty-five years ago. Such work is valuable and necessary, but not new nor scientific nor, above all, an adequate program.

The third stage of development indicates an appreciation on the part of educators concerning the importance of the scientific study of individual differences as a basis for the adjustment of education to individual needs, interests, abilities, and prospects. Beginning with the use of intelligence tests as measurements of scholastic ability apart from actual school work, the scientific study of individual differences soon includes the measurement of achievements, interests, aptitudes, personality, attitudes, and adjustment. Results, however, are interpreted only by administrators and used only for administrative purposes and problem pupils. The skillful administration and intelligent use of these scientific instruments require specially selected and trained persons who may specialize in this field of work. Any guidance program that is worthy of the name must be based upon data of an objective nature used by trained people. Under the influence of these test results, group requirements begin to give way, and

individual programs are more common. The development of specialized guidance departments in secondary schools, however, has occurred in only a very few localities, and, consequently, test results are often not used except in problem cases and for administrative adjustments.

In the fourth stage of development a gradual reorganization of the school program and curriculum begins. *Mass diagnosis* and *mass prescription* are gradually replaced by individual diagnosis and treatment. The usual courses in secondary schools are designed to meet the needs of hypothetical groups. Nevertheless, they are an improvement over the required classical curriculum of an earlier generation, and they are still necessary if no guidance organization exists through which individual diagnosis and treatment are possible. Such courses are much like the old patent medicines which were advertised as cure-alls. Each person, though he lacked both the information and the training necessary to select a prescription among the few possible alternatives, was expected to diagnose his own troubles and select a remedy. Such decisions are often forced upon young pupils before they have either the information or the experience that is necessary for a wise decision. Often the parents are more helpless than the children. The results of such mistakes may be seen in the high percentage of failures; the low level of interest, enthusiasm, and initiative; the "gentlemen's marks" in scholastic achievement; and problems of discipline, truancy, rebellion, and many other ills which beset our secondary school system. For years we have treated the symptoms without any thorough scientific attempt to discover and cure the causes. It is too much to hope for any general improvement of such conditions until school superintendents, principals, and college authorities are willing to go to the bottom of the trouble and develop the necessary machinery and personnel for an adequate guidance program with specially selected and trained counselors who can specialize in pupil adjustment and guidance, and who can investigate the facts

in each case and indicate an intelligent solution. No general prescription will do.

But testing, investigation, diagnosis, adjustment, and prescription are not guidance. These are research, personnel, and administrative functions; guidance or counseling techniques are instructional in nature and do not mix with administration. Until this fundamental principle is understood by principals and superintendents, further progress is impossible. Consequently, in the fifth step we find group guidance a regular part of the curriculum. Even with all available tests and counseling instruments, and with trained counselors for the work, and an adequate time allotment for individual interviews, even with twenty times as great an allotment as any now in existence, there would still be left much to be desired in an organized program of guidance. True guidance must be a training for self-guidance, and any adequate program of self-guidance requires much more time and expense than can be provided by a few occasional interviews during a child's secondary school course. To draw a parallel, it is fair to ask how well a secondary school child could be trained to solve his problems in beginning algebra as a result of six routine interviews, one each term, throughout the junior high school grades, or even with a double portion of such interviews for good measure. Twelve half-hour interviews appear meager in comparison with the one hundred and eighty periods usually provided in the ninth grade for algebra.

It is fair to ask which is the more difficult task, the training of a pupil to solve his algebra problems for college entrance, or the training to solve his problems involving educational, occupational, and social choices sufficiently well to insure a reasonable measure of success in meeting the problems which he is sure to encounter during his secondary school and college years, and especially during the period of adjustment in employment which immediately follows. There can be no comparison between the difficulty or the importance of the two tasks. If we really want a life-centered curriculum, why

not find time in school for the discussing of the actual problems common to all children? Modern educators may seem very ridiculous to future generations for assigning one hundred and eighty hours to the former task, and attempting to perform the latter during a few brief interviews. If we could provide a fifteen-minute interview every day for three years, it would merely equal the amount of time spent upon algebra in one year. But even such a program would be expensive and inefficient, provided it were possible.

The obvious thing to do is to separate the problems that are common to the large majority of students from those which are peculiar to each individual, and to deal with common problems in a group guidance curriculum by means of class instruction. This procedure would save much of the time which must otherwise be devoted to individual interviews. Group problems can be dealt with every effectively on an impersonal basis through group counseling techniques. In fact, they can be handled more effectively by group instruction than by interviews.

But what problems are common to senior high school pupils? We must have a well organized curriculum if it is to have a place in the school program. In 1932, at the meeting of the National Vocational Guidance Association in Washington, there was appointed a joint committee of the City Directors of Guidance and the College Teachers of Guidance. The report of that committee is available. It contains sixty common problems which are a tentative basic curriculum for a group guidance course in the secondary schools. Four general types are included: (1) problems involving information about educational opportunities, (2) problems involved in the study of occupations and occupational problems, (3) problems of personal and social relations, and (4) problems involved in the study of individual differences. These last include self-measurement projects involving (*a*) skills and background, (*b*) subject achievement, (*c*) information, interests, and adjustment, (*d*) special

abilities or aptitudes, and (e) personality and attitudes. The chief emphasis of this report is upon group guidance techniques which are essentially instructional techniques and which conserve the values of the individual interview while dealing with groups of average class size. This procedure effects the necessary economies required to reach the entire student body and to make guidance a part of instructional rather than administrative costs.

Problems that are peculiar to each individual will naturally require individual attention. Sufficient time for such individual work can be secured only through economies effected by the group guidance program. One special advantage of the group guidance attack is that it need not increase costs. It is evident that, when a new gymnasium teacher is added to the faculty and health work is provided in the regular curriculum, the adjustment is made through a rearrangement of the time schedule of pupils and the teaching schedule of the faculty. Pupils may pursue some studies for four periods instead of five each week, or they may have fewer study periods. The actual number of members of the faculty may still remain the same, since the changes in the program and curriculum absorb the cost.

To look at the program in reverse, if the present group guidance course were eliminated from the junior high school system, the pupils would have to have more study periods, or more English or algebra. The cost would be the same. In fact, it is entirely possible for a principal to introduce such a guidance organization without a material increase in school costs. Under no circumstances would the cost be greater than that represented by the addition of one pupil per class section in all subjects in order to provide time for individual interviews. Usually teachers do not object to such an increase, if they receive assistance in problem cases from a counselor who understands each child. Moreover, the more scientific grouping of children for instructional purposes prevents many failures and greatly facilitates both individual and

group instruction in all subjects. Eventually education may gradually cease to be an aimless competitive struggle for survival, and become a conscious individual effort toward a definite goal.

At present the chief obstacle to the development of group guidance programs is a lack of understanding on the part of school administrators. Testing is regarded as the function of the research department rather than as a method of collecting all obtainable data to serve as a basis for the counseling and adjustment of pupils. Counseling is still regarded as the kind of work that the principal formerly carried on, namely, the administrative adjustment of problem pupils at critical periods in their careers, or as the kind of friendly personal interest and advice which experienced subject teachers and home room teachers can pass out to young people. They do not see that individual counseling must be based upon personnel records, and that from the common problems discovered through the interviews there must be developed the basic units of the group guidance course. They do not yet appreciate the importance of the group guidance course as a means of continuous contact between counselors and students over the entire period of their school life in order that the counselors may not only study the records of growth in school subjects, but also observe and record growth in personality, interests, activities, ambitions, and objectives. Most important of all, administrators have failed to see the essential similarity between the techniques of individual guidance and of group guidance. Both are essentially *instructional techniques* rather than *administrative decisions*. They do not involve solving problems for children or for their parents, but rather presenting problems to pupils and parents for their own solution, and helping to accumulate and study the necessary data upon which satisfactory solutions must be based. These data include a continuous growth record of every child throughout his entire school course; not only records of mental growth as shown by intelligence tests, but

also records of educational growth in all of the subjects of instruction, records of growth in personality, interests both inside and outside of school, and records of activities as well,—the kinds of facts that are recorded on the forms of the Educational Records Bureau. These data also include the facts about occupations, the employments of the people in the community, the necessary requirements, training, and other features which trained counselors are stressing every day in the study of occupational units in the group guidance course. It is only by building such a foundation of knowledge of educational and occupational problems and of individual differences that we can improve the wisdom of choices and the solution of personnel problems.

The emphasis upon testing and the keeping of records may tend to alarm some counselors as well as some principals and superintendents. There is danger that they may follow the example of the teacher who, in desperation, cried out, "Stop testing, and let me teach!" In this desperate situation, however, there is hope ahead. New-type tests of the very near future will be broken up into convenient units so that it will not be necessary to alter the school program in order to administer them. Each test may be taken during the regular school period and may not even be announced in advance. Moreover, it need not be followed by hours of burning the midnight oil by the tired teacher after the day's work is done. There is a new mechanical servant to relieve the teacher of all of the drudgery of test correction. It is now possible for the tests of fifty pupils to be corrected in five minutes and returned to the pupils even before they leave the classroom. In fact, each pupil can drop his own test in the machine and read the answer. This machine can be used on any multiple-choice test. It is even possible to give each question a definite weight.

Last spring the machine had a thorough try-out in the Providence schools, correcting the tests for candidates for teaching positions, most of the co-operative tests in grades

nine through twelve, and the Iowa Test of Basic Study Skills in grades seven through nine. This machine will be on the market with the beginning of the next term and should soon be used as a common facility in every school much as a cash register is available in every store or even on every counter. Incidentally, the machine saves its own cost since the same test may be used in many class sections and then filed away for future use as permanent laboratory equipment.

Enough money was saved in the cost of the testing program last term to pay for the use of the machine for the next two years. With such a machine available, instead of testing each pupil every year, it will be possible to test every term or even every quarter, with a comprehensive test, to say nothing of shorter tests whenever a unit of instruction has been completed. With such a machine, testing will no longer hold any terrors for the conscientious teacher or counselor, and records of growth will become the regular order rather than the exception.

RICHARD D. ALLEN,
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Providence Public Schools*

The Arts in American Education: Some Critical Issues in College Education

ONE of the most serious occupational hazards in my particular calling is, in my judgment, the opportunities for public utterance. As I grow older I can feel a growing reluctance to pontificate upon a wide variety of subjects. I am sure it is bad for the pontificator and tiresome for the pontificatee. So today I am going to try an experiment. I am not going to read a paper, and I am not going to make what, God save the mark, is known as an inspirational address.

I have before me a series of questions which I propose to ask myself as well as my audience. Whether these questions will arouse a discussion which in itself will be profitable, I do not in the least know. The only way to find out is to try.

1. What does a college degree mean—what is the irreducible minimum?

2. Would any stretch of faculty imagination—or the lack of it—defend the position that the college degree today means the possession of any common fund of information?

3. Must we rather assume that the essential factor, the irreducible minimum, is the trained capacity to deal with intellectual concepts, the capacity to be ascertained as a basis of admission and the training of that capacity to be the basis for remaining in college and ultimately graduating?

4. From this point of view can we conceive of the college primarily as an environment in which the student can receive such training in satisfactory and useful ways?

5. Are we, by the way, prepared to exclude from admission or from the degree certain young people clearly lacking trainable intellectual capacity, but with exceptional gifts in other respects, as, for example, the capacity to punt a football for 75 yards?

6. Can we assume that both the capacity to deal with intellectual concepts and the effects of training that capacity in college can be measured with reasonable accuracy, and that, therefore, if we accept these as the irreducible minimum, college admission and college graduation need not be a matter of hit or miss?

7. Are we ready to say that the trained intellectual capacity is all we should seek in college, or should we welcome in our student bodies (not as a substitute for this, but over and above) certain other human attributes—bodily fitness, for example, social graces, evidence of the old-fashioned virtues: courage, loyalty, and the like, and—to get to the subject of today's discussion—sensitiveness to esthetic impressions and creative capacity in the arts?

8. If we are agreed that these other qualities are desirable, are we prepared to say that we are able to measure them with the same degree of accuracy as intelligence and the training thereof? We may answer "Yes" without much hesitation as to bodily fitness, but how about the others?

9. Can we say that the college environment is or can be made a fruitful environment for exercise and training in the arts, and, if so, can such exercise and training be properly taken into account in the award of an academic degree?

10. Is there evidence that the college as at present organized has failed to admit, or if admitted has failed to hold students whose interests and talents are creative rather than receptive? Does the proportion of distinguished American painters, sculptors, musicians, poets, who hold college degrees throw any light upon this question?

11. Is there in great art a significant intellectual aspect as contrasted with the purely esthetic? Is there also a body of more or less useful factual information as to the arts which may be conveyed in college? Is there a danger that college teachers of art may mix up these two matters in their thinking, and consequently in their attempt to measure the result of their teaching?

12. Let me drop the question marks long enough to remind you of President Neilson's classic observation that subjects are included in the college curriculum, not in terms of their value to the student, but in terms of their examinability.

13. If we watched college courses in painting, music, poetry, as actually offered today, would we find evidence that such courses are loaded with items of factual information, inserted, so far as one can see, for the purpose of providing a means at examination time for the professor to decide whether the student has "done his work"?

14. If this be true, what must be the effect on the teaching and on the student?

15. Rather than ask ourselves whether there may be a better way of testing capacity and progress of the arts than by examining the examinable, let us shift the line of our inquiry for a moment.

16. Does the chemist have to analyze each and every drop of the liquid in his test tube, or must the biologist measure all the ferns or all the frogs that he can get hold of? If not, need a faculty measure every item in a school or college program before it can say with confidence whether a given student should be either admitted or graduated?

17. Could our educational psychologists find out and tell us what percentage out of the total of such items in the college program need to be measured to guarantee with reasonable accuracy the presence of that trained intellectual capacity which we have been talking about—or, to put it the other way around, what share, if any, of the student's time may safely be released from our measuring machinery?

18. Is it true that modern techniques of admission to college do, in effect, operate to accord a substantial degree of just this kind of freedom to the school boy, incidentally without tragic results so far as one knows? In advance of the findings of the educational psychologists as to college, but in the light of school experience, might we assume as a working hypothesis that 40 per cent of the college students'

time might be freed from our present system of examinations without seriously affecting the validity of faculty judgment as to whether the student is entitled to a degree?

19. Now let us turn back to an earlier question. We asked whether, in addition to intellectual capacity and training, there were other qualities in the student, other experiences in college, in themselves desirable. If the answer to this question be in the affirmative, let us ask whether such experiences would be richer and more useful to the student if gained in an atmosphere of freedom from compulsion, as exerted by examinations, and specifically whether this is true of the arts?

20. Shifting our line of inquiry once more, let us ask ourselves this question: Would the 40 per cent freedom, if accorded, be abused by the undergraduate? Does the experience of Harvard with reading periods, of Chicago with the abolition of the roll call, help us to answer the question?

21. So far as the arts are concerned, have we reason to believe, on the other hand, that a student genuinely interested in this field has certain inner compulsions which will keep him hard and happily at work despite the absence of any sword of Damocles in the form of a pending examination?

22. Would the intellectual content of a college course serve to enrich the esthetic experiences of such students in a way that the professional art school cannot? In other words, will the boy or girl with brains, who is interested in the arts, be better off in college than in art school? Does the answer to this question depend on whether he can pursue his artistic interests in the realm of freedom?

23. Would the 40 per cent suggested provide freedom to the student not only for the arts but for other desirable but non-examinable undergraduate enterprises?

24. Is the presence in the student body of members, not only with intellectual capacity but also with interests and talents which are creative rather than receptive, of sufficient importance to the college to justify it in mending its ways, if they need mending. Specifically, should the college cease

from attempting to measure things which as yet no one knows how to measure, to the end that students of the type I have just tried to describe may first be welcomed as freshmen, and then kept happy and productive throughout their course?

I admit that this last question is not quite fair in the form in which I have put it, but I have tried to make its predecessors reasonably fair in the form in which I have put them. At any rate I present them all to you for your consideration.

FREDERICK P. KEPPEL,
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of New York

The Integration of Personality in Secondary Schools

THIS conference is in part, at least, a recognition of the increasing influence which mental measurement is playing in the field of education. As such it is a tribute to the services of the Educational Records Bureau under the leadership of Dr. and Mrs. Ben D. Wood. Largely as the result of activities of this Bureau, independent schools are now able to establish a testing program in the field of academic aptitude and achievement, which is both comparable and objective. The value of the results for the purpose of comparison is so obvious that it needs but little emphasis. It is possible for us now to lay before a student a factual body of evidence upon which he can base his educational plan.

It is also possible for us to draw attention to the differences which exist between the student body in one institution, and those in another. It is a very salutary thing that we are able to compare our achievement with those of other secondary schools.

Perhaps the chief significance, however, lies in the objectivity of the record, the fact that subjective teacher opinions are reduced to a minimum, that a boy cannot say that such and such a teacher is prejudiced against him, and for that reason has minimized either his achievement or his ability.

Further, I think that all of us who are connected with secondary schools are grateful for the opportunity which the services of the Bureau affords for presenting to the parents objective evidence, both of ability and achievement, which makes it possible for us to reinforce the statement of Plato that golden parents sometimes produce silver sons.

There is no greater *amour propre* than that of the parent in regard to his son or daughter, and there has been nothing more difficult than the attempt to build the educational future

of a student, in co-operation with the parent, upon what we know he may reasonably be expected to do.

Because of the increasing success of these techniques, I have asked permission to depart somewhat from the usual emphasis of this conference, and to turn your attention from the first part or the front page of the cumulative record card which contains, as you know, tests, scores, and percentiles, (an invaluable graph of a boy's progress, or lack of progress) to the reverse side. How many of us really use the reverse side of the card? Here we find something in the nature of a case record of the individual student. Not in terms of academic aptitude or achievement, but of his social background, his health, his personality. The card begins with the general health, with the religion of the parents, and their racial characteristics, and it attempts, furthermore, to describe the student, his discipline, the influences of the home, his mental and emotional characteristics, his physical and athletic aptitudes, his extracurricular activities, his noticeable accomplishments and experiences, and, what is very important, his educational plans.

At the bottom of the card there is a brief space devoted to a simple personality rating, a very brief space, given to a very difficult problem. In contrast with the scores and percentiles which are to be found on the other side of the cumulative record card, it is obvious that the material contained in this social and personal history is neither comparable nor objective.

It must not be assumed that the absence of these qualities is due to the fact that teachers do not consider them to be important. For one reason or another, we have evaded what I believe to be a responsibility. One reason is undoubtedly the fact that the progress in the field of mental measurement has not been paralleled by corresponding advance in the testing and description of human personalities. To divide a human personality into two entities, academic and personal, is an obvious theoretical abstraction, for the educational

process must concern itself not with intelligence alone, but with the total functioning mind. The purpose of education has as its objective the total personality. Any other approach to the problem seems to me to be an over-simplification. It has been both our inability and our unwillingness to view human personality as an integrated unit, which has made prediction of progress faulty and adjustment to later challenges difficult or impossible.

In short, it is my contention that academic ability and achievement alone, grades, scores, and percentiles, do not afford an adequate basis upon which to predict that wider adjustment to reality necessary for successful functioning both in college and in later life.

The successful individual is one who possesses an integrated personality. You may ask me what I mean by an integrated personality. I recognize that the departure of my paper from that which is customary here is not as radical as I had anticipated. Only yesterday, Dr. Day of the General Education Board introduced the phrase "integrated personality." I suspect that Dr. Gates in the paper which follows mine will have something to say of a related nature, and I am told that Mr. French this afternoon will make a brief and practical reference to the problem. But one does, I think, find a great deal of misinformation on the part of parents and teachers.

I can remember a headmaster's conference in which the secretary suggested that one of those present should speak on the problems of boys. One man rose to say that he was there to emphasize this fact: that boys have no problems except to do their work. Is it not possible that in that statement there is a common confusion between effect and causation? Is it not probable that this headmaster was dealing with end results rather than with causative factors? It just so happened that I knew one or two of his graduates. And I remembered that their adjustment to their life problems had been faulty, to say the least, and that the conditions

producing that later maladjustment were present during their school years. Those boys had other problems than the one he stressed. Of course, every boy ought to do his work, but the question is: Why does not he do his work?

Let us attempt a definition: An efficient and well adjusted individual whose habits and mental attitude toward life are so well organized that he is capable of making the essential compromises called for by the obstacles that he meets possesses an integrated personality.

The individual who is approaching his maximum efficiency and getting out of life the maximum of happiness is the individual who has acquired habits that work out to his or her advantage.

Or, stated negatively, the disintegrated personality is one in which infantile regressions are symptomatic of retarded development of a physical, mental, or emotional nature. This obviously is the divided self, dissipating psychic energy and conflict. The self which has made its adjustment to reality and learned to accept the authority of reality needs one further characteristic.

Without emotional maturity integration is impossible. Only then is the individual able to bring all his energies together and concentrate them effectively upon a single goal. I shall have occasion to discuss these statements in an effort to relate mental health to education.

May I say again, that to my mind academic ability alone is not a sufficient basis for the prediction of later success. I believe that the statement can be substantiated by investigations which have been made in various fields. Witness, for instance, the results of the studies made by Dr. V. V. Anderson while psychiatric director of R. H. Macy and Company of New York, and described by him in an interesting volume entitled *Psychiatry in Education*.

Dr. Anderson states:

Thousands of case histories in our files go to prove that what industry asks of the college man or woman is an inte-

grated, adjusted and effective personality, and not certain courses he or she may have taken in college. To one who sees these issues from the outside it is hard to understand the failure of our educational institutions to emphasize the development and training of the whole personality, as their ideal, rather than rest content with the grades attained in chosen or required courses. Here is a job requiring the guidance of all those sciences that contribute to an understanding of the human personality.

May I briefly sketch the results of Dr. Anderson's experience. R. H. Macy and Company made an attempt to collect promising material from the graduating classes of several universities. This material was trained and then placed as junior executives for possible promotion. After eleven years a check was made on the results. Out of 646 individuals, high ranking graduates of colleges, 190 were known to have been unsuccessful within six months, or about 30 per cent. It is well to remember that these figures do not include those who resigned by request, or that 20 per cent for whom no promotion was expected.

These failures, however, were not due to lack of intelligence, or to poor health or to lack of education, but to deep seated personality characteristics, such as lack of adaptability and purposefulness, the absence of ambition, and poor work habits, all of which were present not only at the time that the individual left college, but probably during his school years. They suffered from unresolved conflicts, from repressions, from alternating periods of optimism and despondency, from feelings of inadequacy, or insecurity, from intense shyness or self-consciousness. In spite of the fact that three-quarters of these failures tested at superior intelligence, they were almost never integrated personalities.

As a result of this experience, R. H. Macy and Company decided to follow a somewhat different method. They insisted that all applicants should be interviewed by trained representatives, by individuals who knew something of the general principles of psychiatry, and, in consequence, out of

this selected material approximately 90 per cent of those who were employed proved good executive material. Further implications are of interest. In 1930 out of 344 college men and women examined only two were considered to justify employment. Thirty other promising candidates were accepted for training for non-executive positions.

From these and other figures Dr. Anderson estimates that from 85 to 90 per cent of high ranking applicants from colleges were rejected, and less than one per cent were considered to be potential executives.

On the college level the information is not as detailed, and yet it points to the same conclusion. The history of the mental hygiene movement in colleges is well known. The Commonwealth Fund financed such an experiment at Yale in 1926. Although at first the emphasis was upon problem types, the psychiatric workers finally came to see that the work of mental hygiene in college was a question which concerned the happiness and the efficiency of the average normal person.

The late Dr. Frankwood Williams has defined the objectives of college mental hygiene work as being the conservation of the student body, so that intellectually capable students may not be forced to withdraw unnecessarily, but be retained—the forestalling of failure in the forms of nervous and mental diseases immediate or remote, and the minimizing of partial failure through later mediocrity, inadequacy, and unhappiness. The making possible of a larger usefulness by giving to each fuller use of his intellectual capacity through widening the sphere of conscious control, and thereby the sphere of social contact.

In other words, the program is largely preventive, dealing with the mental health of the average normal person. I stress this because of the fact that there may be some individuals in this audience who feel that everything which has to do with mental health partakes of the problem case. So frequently a headmaster solves the difficulty by saying, "Oh, this is a problem boy." Yet we have never had an adequate

definition of what "a problem boy" is. We realize that there are boys who cannot be educated in a secondary school system, and that these are problem boys. We realize that there are individuals incapable of making a good social adjustment, and these again are problem boys. But every boy, and I might say every man, has problems which lower his effectiveness and his happiness, and it is not of the abnormal cases that I speak today, but of the average normal boy or girl in our secondary schools.

The same results to which Anderson has pointed have been found by men like Stanley Cobb in a study of the freshman class at Harvard. Here 16 per cent possessed neurotic constitutions. In fact, Williams insists that 95 out of 100 students in our colleges show a need of guidance, and if that is true the same thing must be so in schools.

As far as the school age is concerned, very little statistical information exists. To be sure, various members of the faculty have a large body of information in regard to the boys or the girls. That information, however, is not pooled for effective use.

Recently, I sent out a request to some sixteen headmasters for information in this field and received practically nothing in reply, except the boy's academic record. It is apparent that parents and teachers are uninformed in regard to the simplest questions concerning human behavior.

May I for a moment or two sketch some of the personal characteristics with which all of us as headmasters have to deal. Of course it is obvious that the family is dominant in the field of causation. Heredity may be fixed, but certainly intelligence should be able to control some of the environmental factors which surround a boy or girl in the home situation. Every teacher has to deal with material which has been definitely conditioned by the stimuli of early childhood, such as the standard of living of the family, the cultural background of the parents, the presence of divorce and its bearing upon the children. More important perhaps is the

way in which the personality pattern is determined by direct parental influence. Are the parents, for instance, conscious of the biological nature of the conflict between the older and the younger generation, and of the importance of this conflict for progress? Do they respect the son's will to power? What is the rôle of the father in the family? Does he realize that the integration of a son's personality demands that someone, preferably the father, must be ready to say "no" to the boy's instinctive wishes? This factor is obviously neglected in the American home. Is the father aware of the fact that he often views the son as an extension of his own ego? How often we hear statements such as, "If my boy can't get into Yale, he is not going to college. I played on the team when I was there and my son must follow me." Or, "I want my boy to get into Harvard in order that he may make certain associations with which I think I can assist him. No other place will do." One wonders if fathers recognize the part which their ego plays in matters of this kind?

What of the rôle of the mother? Is she aware of the danger of using her son as a source of emotional satisfaction? Can she estimate the nature of the unconscious bond connecting them? Does she accept the fact that a boy must emancipate himself from the thralldom of the home if he is to become emotionally mature? Can the parents in consultation with the teacher adopt an objective attitude toward the boy's problems? Do teachers recognize themselves as parent substitutes? Thus education necessarily includes the adjustment of the home background. All of us, I am sure, have found that until we can change the attitude of the parents towards the boy we can accomplish but little.

Now let me go on to certain other characteristics which play an important part. There are the developmental problems which focus around the conflict between the reality and the pleasure principles, involving the mechanism of extroversion and introversion. Do we allow for both types? We will do well to examine a pupil in the light of his defense

mechanism. Does he rationalize in an attempt to escape reality? Do we know the part that phantasy plays in his life, in his search for major satisfactions? Does he know how to work when working, and how to play when playing? Thus we find the emphasis on either the reality or pleasure principle a test of personality integration. Does the individual secure his main satisfactions in overcoming objective difficulties in the world of reality? These characteristics are all connected with the mechanism of evading the disagreeable, which is the natural tendency, but which is one which has ruined many lives.

Do we recognize the part which ambition plays? Have we adapted our curriculum to the individual so he has a reasonable opportunity for success? Are we aware of the devastating influence of a sense of inferiority? Do we know that here guidance can have but little effect, that over-solicitude and coddling is dangerous in the extreme, and that the individual if he is to overcome this sense of insufficiency must find achievement on the basis of his own power. Here nothing succeeds like success. There are many other minor forms of maladjustment, which prevent the individual from attaining an integrated personality. The acid test, I repeat, is the ability to face the challenges which reality presents, to attack problems and to gain one's major satisfactions by overcoming them. Such an individual is emotionally mature. He is effective, happy, and integrated. Such a boy or man will not long be satisfied with any other substitute.

It follows that if the schools are to add the integration of personality to their prevalent emphasis on academic achievement, it will be necessary for us to stress three essential characteristics in the individual. They are simple, but often overlooked. First, the student must gain self-knowledge. He must be made aware of the main patterns of his personality, of his capacities and his limitations, mental, physical and emotional. He must, in short, develop a personal philosophy which emphasizes his positive qualities as a basis for achieve-

ment. To this end he will need sympathetic guidance, instruction dealing with normal behavior patterns, selected reading in special groups, and possibly a course in the principles of mental hygiene. Personality and vocational tests may prove helpful as they are perfected, but the teacher himself must be made aware of the simple phases of mental health, and able to refer students to others capable of giving advice.

Secondly, the individual must be taught the value of self-discipline. This can come only out of knowledge and experience based on meeting life situations. To the degree that the personality becomes integrated, and the individual accepts the authority of reality and makes the essential compromises with *his instinctive wishes, will he learn to make right choices.*

And the third desirable characteristic is that of self-direction. Self-knowledge and self-discipline must produce a dynamic result. Primitive energies are to be directed towards socially useful behavior.

Thus I have attempted to lay before you some of those factors which seem to have a bearing upon my general thesis. In closing, may I draw your attention to a bulletin sent out by the Educational Records Bureau only last July containing a summary of a study made by H. A. Landry on the relative predictive value of certain college entrance criteria? The criteria studied were, first, the final marks in the last year of secondary school work of 416 boys in sixteen independent schools; second, their marks on college entrance examinations; third, the scores on the tests of the Co-operative Test Service; fourth, the scores on the college board tests of scholastic aptitude. These were correlated with the final marks of the same students at the end of their freshman year in three eastern universities.

The inter-correlation between these four criteria and the freshman marks show a coefficient of only .62. Such a coefficient points to the presence of correlation with disturbing factors not measured. The highest correlation is that be-

tween freshman marks and the secondary school marks, but this is only .625.

Thus Landry concludes, "It is evident that there is great need for the improvement of both admission and placement criteria and of measurement of college achievement." Numerous recent investigations of the relation between personality factors and college success are indicative of the widespread realization that present entrance criteria do not provide an adequate description of the individual candidate. I cannot escape the conclusion that the most promising instrumentality for improving admission is the cumulative guidance record, which presents evidence of trends of growth, not only in academic subjects, but also in such important matters as personal development, social adjustments, attitudes, and habits.

It is in the hope that the secondary schools may become more successful in making the integration of personality their educational goal that I respectfully suggest that the Educational Records Bureau act as a clearing house for investigations being made in many fields. There is no panacea. Personality tests and personality descriptions which are adequate must be developed slowly. We will attack the situation better only when we possess more comparable and more objective means.

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The Psychological Basis of Remedial Reading

FREQUENCIES OF VARIOUS TYPES OF READING DISABILITIES

IN CONSIDERING the problems raised by the prevalence of reading disabilities, two general facts should be considered. The first is the fact that the curriculum of American schools is primarily a reading program. The second fact is that failure in reading, in a sense to be indicated presently, is still relatively frequent. The seriousness of the problem is indicated by the fact that a large percentage of failures in school work, in general, can be traced to serious disabilities in reading. For example, in the second grade about 98 per cent of the general failures are found among pupils who have failed to learn to read adequately.

Failure in reading, which in turn causes general school failure, almost invariably has serious social and personal consequences. For example, among a hundred cases of reading disability taken at random from the speaker's files, the following types of maladjustment are shown:

1. Nervous tensions and habits such as stuttering, nail-biting, restlessness, insomnia, and pathological illnesses—10 cases.
2. Putting up a bold front as a defense reaction, loud talk, defiant conduct, sullenness—16 cases.
3. Retreat reactions, such as withdrawal from ordinary associations, joining outside gangs, and truancy—14 cases.
4. Counter-attack; such as making mischief in school, playing practical jokes, thefts, destructiveness, cruelty, bullying—18 cases.
5. Withdrawing reactions; including mind-wandering and daydreaming—26 cases.
6. Extreme selfconsciousness; becoming easily injured, blushing, developing peculiar fads and frills and eccentricities, inferiority feelings—35 cases.
7. Give-up or submissive adjustments, as shown by inattentiveness, indifference, apparent laziness—33 cases.

In only 8 cases was there evidence that the pupil developed a constructive compensatory reaction, such as special ability in drawing or singing or dramatics.

Failure or serious difficulty in reading is, under present conditions, a major catastrophe in human life, as serious in its consequences to children as financial or marital failure is to adults.

The frequency of failure or serious disability in reading is difficult to define exactly, since there is some disagreement concerning the degree of retardation below the recognized norms at which the line between moderate and serious difficulty should be drawn. Until recently it was customary to consider as serious reading disabilities only those pupils who failed to achieve during the first grade a level of ability sufficient to enable them independently to read typical primary material. At the end of the first grade approximately 17 per cent of the pupils in American schools failed to achieve this level of competence. Above them are an additional 10 per cent who may be described as poorly equipped in reading and likely to encounter difficulties in later grades. Of the pupils now classified in the second and third grades, at least 15 per cent are so seriously handicapped as to be unable to do satisfactorily the minimum amount of reading required in the typical classroom. In these three grades will be found in American schools nearly a half million pupils who are subject to such serious disabilities as to make most of their school work a prolonged period of frustration. In the New York City schools approximately 18,000 such pupils were located in 1933 and for the treatment of whom a P. W. A. project was inaugurated in January, 1934. This project has been continuously in operation with a staff of from 400 to 750 remedial teachers since that time. Over 12,000 cases have been given remedial instruction with successful results in about 93 out of 100 instances. This group represents the most serious of all of the types of reading problems.

The problem of reading disability is not limited, however, to the first three grades. Some years ago one of my students, Dr. Doris Lee, discovered that the program of the typical school in grades 4, 5 and 6 demanded at least a reading ability represented by a grade score of about 4.2. That is to say, the amount and ability of the reading required in these grades were such that they could not be successfully met by a pupil whose reading ability was lower than a grade score of 4.2. Practically all pupils with a lower grade score showed a low accomplishment quotient in practically all of their school subjects. Unless such a child was gifted with exceptional intelligence, he was likely to fail in his school work. Thus, the old assumption, that a pupil who was retarded in reading by only a half or full grade at the time of beginning work in grade four was not seriously handicapped, was proved to be faulty. Making what we now call the fourth grade hurdle represents a special problem in reading instruction.

A recent survey of about 12,000 pupils in grades 4, 5 and 6 in a large city shows that about 30 per cent of these pupils have not jumped the fourth grade hurdle. All of these children are laboring in their various school subjects, seriously handicapped by inability to use the primary tool.

Recent studies have shown that there is a similar minimum requirement for investing ones intellectual ability reasonably well in the work of the junior and senior high schools. While the critical point is here not quite so well defined as at the lower grade levels, it can be conservatively placed at a grade score of 7.2. In a recent investigation of about 600 pupils in grade 9 in a city with a better than average school system, it was found that 12 per cent of the pupils did not exceed this score. It is significant to discover that some of these pupils had not even surpassed the fourth grade hurdle. The distribution of reading scores below the seventh grade norm were as follows:

Grade 6	—	5 per cent
Grade 5	—	3 per cent
Grade 4	—	3 per cent
Grade 3	—	1 per cent

When it is realized that these figures are superior to the average, it is clear that a typical ninth grade presents serious problems for diagnostic and remedial work in reading. In the general school population it is probable that, of the pupils in the junior and senior high school, at least 1 per cent are mere third grade readers, 4 to 5 per cent fall below the reading ability required for grades four to six, and probably 15 per cent or more fall clearly below the minimum level required for eighth grade work. In all probability, at least 25 per cent lack the reading ability called for in the typical eleventh and twelfth grade programs.

THE CAUSES OF READING DISABILITIES

It is very difficult to discover the primary causes of reading disability in the case of pupils who have been in school from two to twelve years. Often the difficulty originated years before any kind of study of the problem is made. In many cases the difficulty goes back to factors in operation in the first grade. In fact, most of us who have been studying the problem are convinced that the majority of the difficulties originate during the first year of work. On the other hand, there are pupils who have made normal or only slightly less than normal progress during the first two or three years, only to fail to acquire some of the higher level techniques. In fact, a pupil may habituate his methods of reading at almost any reading grade and continue to function on that level for the rest of his life. Among adults, including college graduates, there are many persons whose reading ability is essentially the same as that of a typical third, fourth, fifth or sixth grade pupil.

With relatively few exceptions among the retarded readers, the higher the reading ability, the easier it is to bring about

appreciable improvement. The most difficult cases to handle are the so-called reading failures in the first and second grades. Despite the fact that these are the most difficult cases to remedy, they are the ones that we now understand best. This is due in part to the fact that they have been more thoroughly studied and partly to the fact that they are studied more nearly at the time when the difficulties arose, and it is easier to discover what factors probably contributed to the reading defect.

A large number of specific constitutional handicaps and deficiencies in instruction can produce reading failure or retardation. In our discussion this morning it will be necessary to group the causes into a few rough categories to indicate the types of factors which tend to produce reading defects.

The first group consists of a wide variety of constitutional limitations which a pupil may bring with him to the first grade. Among these factors are low intelligence quotient, low mental age, a variety of visual defects, deficiencies in hearing, lack of aptitude for phonetic analysis, poorly coordinated attention, nervousness and emotional stress, motor inco-ordination, speech defects, various types of glandular imbalance, poor health and low stamina and others. Any one of these, but especially a combination of such handicaps, may be responsible for difficulties and failure in reading unless the teacher makes skillful adjustment to them. This the teacher is rarely able to do, either because she does not recognize the handicaps, or does not know how to take them into account, or, because of the large number of pupils in the room, she is unable to do so. Although there has been, within the last six years, a disposition to exaggerate the importance of certain rather striking characteristics such as left eyedness or mixed lateral dominance, or a lack of cerebral dominance, it is unquestionably true that many constitutional limitations contribute to a greater or a less degree to the difficulties in learning to read. A National Committee, now reaching the final steps in preparing the manuscript of a

Yearbook on Reading, has reached the conviction that, if the dire effects of reading failure are to be eliminated, it is necessary to introduce into American schools a comprehensive examination of the children at the time of entering. This examination should include tests of the several factors mentioned above and others. Although such a plan would require additional school officers and facilities, it is believed that it will result in a great net saving in the total cost of education, not to mention the avoidance of enormous social wastes which result from school failure and personal maladjustment.

Included in the examination of pupils on entering school must be tests of various abilities, interests, and skills essential for learning to read successfully; for example, ability to speak the English language, to comprehend typical stories and paragraphs, to know the meaning of typical primer words, to use common objects, such as books, pencils, chalk, scissors and the like. The acquisition of these abilities and interests prior to entering school varies greatly among children. In typical schoolrooms a rather fixed and rigid program is introduced which is too difficult for many pupils lacking average educational opportunities and incentives. Failure to develop some of these phases of "reading readiness" or preparatory interests and skills may be a sufficient cause of reading failure.

It is always misleading to say that reading failure is caused by a particular constitutional deficiency or the lack of a particular interest or ability. The cause of reading failure is always failure to adjust materials and methods of instruction effectively to the needs of a particular individual. Thus, the pupil who is hard of hearing may fail to learn to read if his difficulty is undetected and he is placed in a noisy rear corner of the room, whereas, if this pupil is given a front seat and other advantages, he may learn to read normally. A pupil coming from a poor home in which he has had little contact with English may fail to learn to read in a typical class, but, by giving him certain preparatory language experiences and special supplementary reading materials and activi-

ties, he may learn to read rapidly and soon catch up with others of his intellectual level.

It is therefore necessary to consider as factors contributing to reading defects certain characteristic features of typical schoolroom organization. The large size of typical classes is a feature which makes adaptation to individual needs difficult. Confronted by forty-five pupils with a diversified constitutional equipment, with very different habits, skills and interests, even the most skilled teacher finds it difficult to learn all that she needs to know about her pupils and to make adjustments to them. As we study the requirements of materials for beginning reading, we learn, furthermore, that the typical classroom is woefully deficient in the amount and kind of materials needed to enable every child to learn to read successfully. For example, recent experiments have shown that pupils with I. Q.'s ranging from 5 to 95 need material providing 150 or more running words to read for every new word introduced. Many classrooms have a quantity of material which provides fewer than twenty running words for each new word. The result of this is that pupils are continuously struggling with material which is for them extremely difficult. The task of making up sufficient supplementary material as she goes along is more than one could reasonably expect a teacher to achieve. Typical classrooms, furthermore, have far too little of the modern types of teach-and-test material which is needed for successful teaching in large groups. One of the causes of failure in reading is the inability of the teacher to determine daily how well the pupil has mastered an assignment and what difficulties, misunderstandings, and confusions have appeared in his work. If the latter are not recognized, they carry over to increase the difficulty and confusion of succeeding lessons. Thus, out of a small misunderstanding, momentary confusion, or failure to acquire particular groups of words, or techniques, gradually develop serious difficulties. A greatly increased supply of self-administering and self-diagnostic material would help

enormously to improve reading instruction. It is upon materials of this type that the successful remedial reading instructor depends to a large extent. In the New York City project, for example, one of the large tasks was the preparation of additional materials of all types, especially the self-administering and self-diagnostic form.

Reading disabilities spring from defective instruction, such as failure on the part of the teacher properly to demonstrate to the pupil the necessity of always observing a word from left to right. When a pupil first begins to read, he does not realize that a word is perhaps the only thing in the world which must always be observed in one direction. Faces, small objects, wallpaper patterns, diagrams, pictures, almost all other things, can be as readily perceived by observing them from up to down, right to left, or in miscellaneous ways, as in the left to right direction. Habits of observing objects in all sorts of directions are carried over in the observation of words, but here they do not work, and, unless the pupil is given special guidance in forming specific habits of observing words in the right direction, he will later reveal reversal errors, such as calling was, "saw," and other types of mistakes. The deficiencies in teaching techniques are partly due to ignorance and incompetence and partly to the preceding limitations, namely, the large number of pupils in the class and the dearth of printed materials.

At the higher grade levels the causal factors are, in general, much the same. To these must be added the tendency of children to habituate a performance on a certain rather easy level. Thus, a pupil, having learned to read at the rate of about 80 words per minute, is disposed to habituate that speed in order to achieve ease and comfort unless some special incentive for increasing it is provided. In many schools no such incentive is introduced. The majority of adults and high school students, for example, have no idea how many words they read per minute. Pupils have gone through schools without ever having had the question of their speed

of reading raised. Some represent instances of habituating a third or fourth grade technique and continuing to work with it. To avoid the formation of order habit levels and to detect factors other than mere habituation which may have been responsible for failure to achieve higher competence in reading, it is necessary to analyze the equipment of pupils at intervals throughout their school career. Devices for this purpose have recently been developed. They take the form of a diagnostic inventory. Such an inventory may include from 30 to 50 very short tests, observations and examinations which are designed to provide a canvass of most of the techniques and skills involved in effective reading. An hour or two hours is sufficient for a skilled examiner to make a comprehensive survey of a typical case. This should be done once or twice a year for all pupils whose scores on standardized reading tests suggest retardation in reading. Some progressive teachers manage to give a brief inventory survey to substantially all of the pupils at intervals of not more than two months.

A special difficulty in handling reading problems beyond the first grade is the lack of permanent records of past achievements, difficulties, types of instruction, and other facts about the history of the case. A thorough diagnosis of a fourth grade reading case now requires several hours, primarily as a result of the fact that many data are needed and so few are available in the school records for interpreting the case. If a permanent record of progress in reading were available, instruction would be greatly improved and failures would be far less easily condoned. The National Committee on Reading is recommending most vigorously a program of permanent records for each pupil.

REMEDIAL INSTRUCTION

Remedial instruction, at its best, consists in adapting materials and methods effectively to the needs and interests of a particular pupil. Since the needs and interests of pupils

differ widely, remedial instruction must take many different forms. For example, a particular third grade pupil may reveal special weakness in working out the recognition and pronunciation of words encountered in reading. It may also be found that he has a special inaptitude for handling the sound or phonetic characteristics of words. He does not readily think of words that rhyme or of words that begin with a common initial sound. He is very poor in fusing or blending a series of isolated sounds into a total word sound unit. Many pupils have been taught by the conventional phonetic approach, which was poorly adapted to them, to a point where any activity in dealing with the sounds of words produces tension and distress. For such a pupil, a program based upon a study of the visual characteristics of words, combined with a large amount of reading of very simple but interesting material, would be suggested. Another pupil may have similar difficulties with word recognition, but he may possess a special but undeveloped aptitude for the phonetic approach. Pupils are sometimes found who have been given practically no instruction in dividing a word into syllables and working out the recognition and pronunciation of words by syllabication. I have seen cases for whom a couple of hours of instruction in this technique proved to be of enormous benefit. The type of instruction to give an individual, in other words, depends upon the specific deficiencies in reading techniques and the specific constitutional handicaps which he may reveal. Careful diagnosis of both is the first step in formulating a program for remedial instruction.

Unfortunately, a number of rigid systems of remedial instruction have grown up within the last decade. Some of these are recommended for use with all cases without regard to the aptitudes and inaptitudes of the pupil. For example, on the Western Coast a program which depends largely upon the writing and tracing of words, with no phonetic instruction whatever, has been developed and has been quite widely used. In the Middle West, another program which is based upon

the translation of individual letters into sounds is prescribed for all cases. Still another scheme depends primarily upon the rapid exposure of individual words or parts of words in a Tachistoscope. The proponents of each of these and other policies point to the success of the scheme in a large percentage of cases as evidence of their fundamental soundness. The success of these plans depends upon the fact that they have been administered in individual face-to-face instruction and not upon the intrinsic merit of the program. When a pupil is given instruction alone, many advantages which could not be realized in the classroom are automatically brought into operation. For example, the teacher can tell whether the pupil is attending, whether he understood what he is to do, how successful he was in doing it, what special difficulties he has, whether to repeat the lesson or go ahead with the next assignment, etc. These factors alone are sufficient to enable many pupils to learn to read, despite the fact that the program is very poorly adapted to his particular needs. Obviously, much greater success and swifter learning would result from a program in which a pupil's special aptitudes are given full play along with the advantages secured from individual observation and instruction.

Individual instruction is, of course, expensive. During the two years and a half in which the New York City P.W.A. projects have been in operation, a variety of other plans have been tried. A highly successful plan is one in which the teacher meets each pupil alone until she has become well acquainted with him and has gotten him to a point where he can do a great deal of work by himself with the aid of self-administering and self-diagnostic material. At this point the pupil is grouped with one or two others and the group gradually increased to as large a number as the teacher can effectively manage. In the course of time this group may include 25 or 30 or more pupils. In the hands of a skillful remedial teacher very few cases fail to learn to read under this policy. Another plan is to group together from the

beginning from two to six pupils who are more or less similar in their needs and reading ability. When suitable materials are available, most children can be successfully taught. Another plan is to begin with larger groups (for example, as many as 25 to 35), in which pupils are provided with an abundance of self-directed material which they use as well as they can during the initial period of two or three weeks, while the teacher is spending some time daily with each member of the group. She can soon learn what pupils need the greater amount of attention and what ones can work fruitfully for extended periods by themselves. Such groups can be working on a similar topic, thus permitting various types of group enterprises, discussion and co-operative projects, although they may be working at different levels and spending part of their time on different types of remedial work. We have tried out experimentally several plans of this type. In general, the results are not quite so brilliant and a somewhat larger percentage of pupils fail to overcome some of the more serious limitations. When the plan is operated in such a way that the more serious cases can be taken separately for some individual work daily, the results are considerably better.

Almost any school can put into operation with its present staff some form of diagnostic and remedial program. In some schools this has been done by co-operative enterprises among teachers in which the teacher with the best equipment for remedial work is freed certain hours daily for giving special instruction to the problem cases from all of the classes. This teacher, after making a special study of the individuals and inaugurating remedial work, gives suggestions to the other teachers concerning special help that may be given in the regular classroom work. Frequently additional technical assistance can be secured from the school psychologist or expert in tests and measurement or a supervisor who has made a special study of the work.

In the upper grades and in the junior and senior high schools it is usually easier to organize a program for remedial instruc-

tion. For example, in the schools of Altoona, Pennsylvania, an excellent program was inaugurated by a teacher of English who had made a specialty of diagnostic and remedial work. She devised a program in which, co-operating with the teachers of various subjects, a period of an hour a day was freed for remedial work. During this hour, pupils were taken in groups and provided with special practice and self-diagnostic materials. The teachers of the other subjects followed the remedial teacher's suggestions for continuing the drive during the study periods in their field. For them suitable types of reading activities, tests of speed of reading, comprehension exercises, and other devices were prepared for use in the class study periods. Group work of this type was conducted for one term. Those who had shown considerable improvement during the term continued to work in groups and those who had not responded satisfactorily were given more detailed individual attention. During the academic year the group of retarded readers, who represented about 17 per cent of the total population, of grade nine, made an average gain of two years and four months in reading speed. Out of a total of 172 retarded readers, only three failed to gain the equivalent of as much as a full grade in reading ability. This program embodied instruction in written and oral composition in which similarly large gains were made. Whereas, at the beginning of the year, 165 students fell below the reading grade score of 7, at the end of the year only 2 pupils still remained below this point.

Where a large amount of individual instruction is possible, however, more rapid and thorough improvement can be secured. In the lower grades serious disability in reading justifies a school organization in which careful diagnosis and attention to the improvement of reading is provided for a period of time in a number of the classroom activities during the day. In the Speyer Experimental School such a plan was tried with a group of 25 reading disabilities and five classes of dull-normal children, I.Q.'s 75 to 90. The teachers were

provided with a fairly comprehensive diagnosis of the pupils made by some of my students and a group of well trained P.W.A. workers. In the remedial reading class, at the end of three months' instruction, the average gain in reading ability was equivalent to the normal gain in thirteen months. In the dull-normal groups the results in all except one class were similarly great.

Needless to say, the most brilliant results are usually obtained in individual instruction carried on by a person well trained in modern diagnostic and remedial procedure. Excepting children with I.Q.'s below 70, or those very seriously affected with obvious physical handicaps, I have never yet seen a case, however hopeless he might superficially appear to be, who did not learn to read reasonably well when diagnosed and given remedial instruction by a well trained person. The popular idea that there are pupils subject to word blindness or lack of cerebral dominance or to other constitutional factors which makes it impossible for them to learn to read, is a residual of earlier decades before modern methods and techniques were developed. Sometimes the most complete failures in the primary grades proved to be children who have no constitutional handicaps whatever. They merely represent instances in which the pupil has completely failed to understand the whole business or to know how to go about the task of learning to read. The more typical case, however, is one in which a combination of factors conspires to produce the difficulty. For example, if a pupil with a mental age of five and one-half years is introduced to a program that is fairly hard for a child with a mental age of six and one-half, and if he has a slight degree of astigmatism and a moderate hearing loss, and happens also to have been given a seat in the back of the room, and if he also had less than a normal amount of play with picture books, and limited encouragement to learn to recognize occasional words, like *go*, *stop*, *exit*, etc., he is quite likely to have considerable trouble and to become confused and unable to maintain the pace of the class. As he falls more

strikingly behind; he is likely to lose interest in the work, to feel tensions creeping over him when he attempts to do it, and to develop various types of unfortunate mental adjustments to the whole situation. A pattern of this general type is the typical serious reading failure or disability. It is a pattern which we are now fully prepared to diagnose and understand. Not only can the pattern be understood but methods of management are now clearly known. When they are put into effect, as may be done almost anywhere, failure in reading can be completely avoided. Except as stated above for certain very serious limitations, I doubt that there is a child anywhere that cannot be taught to read and who will not enjoy the process of learning.

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A New Concept of Intelligence and a New Method of Measuring Primary Abilities

IN THE time at my disposal here, I shall try to answer briefly some of the questions that have been asked about factor analysis and about the application of factorial methods for isolating the elements of intelligence. I shall also describe some of the factors that we have found in the current tests of intelligence, and, finally, I shall show some lantern slides of a few of the tests for each factor.

The details of factor analysis cannot be described adequately without mathematical formulation, but it should be possible to describe the general nature of the problem, and this is what I shall attempt to do with special reference to the problem of discovering the fundamental or primary elements of intellectual endowment.

It has been a matter of general observation that people differ widely in endowment for different types of mental work, but the psychological test methods have not, until recently, given us any objective methods for appraising these individual differences with confidence. Very early in the experimental study of this problem, it was found that those people who succeed in one type of mental work usually excel also in every other type of mental work. In any collection of psychological tests that we give to a group of subjects, the tests are always found to be positively correlated. If several tests are so constructed that they differ radically in nature and content, we may find that their intercorrelations are nearly zero, but we never find significantly negative correlations between any pair of mental tests.

These experimental findings, with which every psychologist is familiar, have led to the search for that elementary trait, or those elementary traits, which all mental activities seem to have in common. This has set the direction of psychological test investigations, and it is only natural that this

direction should be followed since very diverse mental activities seem to be positively related.

The same results are obtained if we study the school grades of students. Our personal knowledge of individual students would lead us to suspect that some of them are gifted for certain subjects in which others are deficient. When we study the relations among school grades, the results are similar to the psychological test results. Those students who excel in one subject are usually superior in each of the other subjects. School grades are positively correlated. These are well-known facts which have been established so many times by different types of analyses that it is no longer profitable to debate that question.

But we are interested in the exceptional students who appear in the negative quadrants of the correlation table. We do find occasionally a student who excels in language and who is inferior in mathematics, but we must not forget that these are exceptional cases. If we tabulate all the students who excel in language, we find universally that their average grade is above the average in mathematics and in every other school subject. But the exceptional cases lead us to suspect that the positive correlations among psychological tests and among school subjects may have to be explained in some other way than by a single, central, intellectual factor. It can be easily shown that the positive correlations among the various psychological tests can be explained in terms of a set of independent abilities, no one of which is in any sense universal or central. Multiple factor analysis makes no assumption as regards the existence of a central intellectual factor. We can leave it as a matter of fact whether there exists a single factor or ability that can be called "general intelligence."

The factorial methods have revealed the existence of a number of primary factors of mental endowment which are uncorrelated. I am frequently asked how it can be physically possible for school grades, or test performances, to be correlated when they are composed of mental elements that are

uncorrelated. Since this is so frequently asked, I shall start with this aspect of the problem and attempt an explanation. Let us suppose that there are ten or twelve uncorrelated abilities. This means that those who excel in one may have any rank in the others. Now any school subject, or any psychological test, is composed of a number of these primary elements. It is hardly possible that any psychological test, or school subject, is a measure of only one of these elementary abilities. Let us suppose that a certain task is composed of elements 1, 3, 4, 5, and that another test demands the elements 4, 6, 8, 9, 10. These two tests would have at least one element in common. If the tests are complex functions of the elementary mental abilities, it will usually happen that they have at least one element in common, and perhaps more often several. Thus it happens that the test scores are correlated although the primary abilities of which they are composed are uncorrelated. The greatest difference that can be obtained between two of these tests would be a zero correlation. That would be the rather unusual case, in which two tests do not have any of the fundamental elements in common. We assume, generally, that abilities do not enter negatively into the tests or school subjects. According to this assumption, any particular ability that we possess does not actually detract from our performance. An ability may be entirely extraneous to a task but we assume that the abilities do not enter negatively into any mental performance.

We can conceive situations in which an ability might make a negative contribution to a test performance, but it would be generally agreed that such effects are rare. In any event, such influences would be over-shadowed by the positive effects of the abilities that are involved in any particular test. According to this line of reasoning, one or more of the mental elements may, or may not, be common to all mental activities. We can leave it as an open question whether or not there exists a single factor of general intelligence. These considerations give us the general setting for the factor problem.

Factor analysis starts with the assumption that any particular test performance is a linear function of primary elements. We make no assumption as to the number of elements involved in any particular test. By a linear function we mean that the test performance can be expressed as the weighted sum of the contributions of primary mental factors. The weights are essentially characteristic of the tests, and the mental factors are essentially characteristic of each individual. A particular test performance depends then on two sets of factors, namely, (1) the extent to which each ability is demanded by the test, and (2) the extent to which the individual possesses each of the abilities.

If we have a group of 100 subjects who have taken 50 tests, then we have 5,000 test scores to analyze. In factor theory, a table of these scores is called a "score matrix." The next step in the analysis is to determine the degree of relationship for every pair of tests. This is given by the correlation coefficient. A table of intercorrelations of the tests is called a "correlation matrix" in factor theory, and it is usually the starting point for a factor analysis.

The first question is to determine the smallest number of factors that must be postulated in order to account for the given intercorrelations. It can be shown that the number of factors is equal to the rank of the correlation table. The rank is a mathematical property of a rectangular table of numbers. It is of considerable interest to realize that, with a given table of intercorrelations of tests, we can determine how many factors are involved before we have any idea what the factors are like.

The object of a factor analysis is, of course, not only to determine the number of factors in a test battery, but also the nature of each factor. We also want to know what part of the total variance of each test is to be attributed to each factor. At this point a very interesting indeterminacy appears which seemed for a while to stop the possibility of a unique and meaningful solution. I shall try to illustrate the nature of

this dilemma by a simple geometrical interpretation of the problem. Let us assume, for simplicity of this example, that there are only three factors involved in a test battery. Then the matrix of intercorrelations would be of rank 3. This table of intercorrelations defines uniquely a configuration of tests in three dimensions. As soon as the intercorrelations are known, a model can be constructed to represent the test battery, if there are not more than three factors involved. Factorial analysis can be extended into any number of dimensions, but the model cannot be constructed in more than three dimensions. A model can be made by sticking some hat-pins into a small cork. The only requirement in constructing this model is that the correlation between any pair of tests, A and B, must be equal to the product of the lengths of the two corresponding hat-pins and the cosine of their angle of separation. It can be demonstrated that if the test battery contains at least six tests, and if there are only three common factors involved, then it is always possible to make a model of this kind. Furthermore, under these conditions there would be only one model that can be constructed for the given table of intercorrelations. A test which has much in common with the other tests of the table would be represented by a long hat-pin. A test which is unreliable, or one which has very little in common with any of the other tests in the table, would be represented by a short hat-pin. If two tests are nearly identical in mental constitution, then the two corresponding hat-pins would be close together in the model. If two tests are so differentiated that they have no mental elements in common, then their correlation is zero. The two corresponding hat-pins would then be at right angles in the model. If two tests could be found which correlated negatively, then the two corresponding hat-pins would diverge at an obtuse angle. Such a situation occurs in dealing with personality traits, but not with intelligence test. This geometrical interpretation of the problem appears as a very natural way of visualizing the algebraic development of the fundamental postulates.

Since all psychological tests correlate positively, and since the lowest inter-test correlations approach zero, we should expect to find that the hat-pins in the model take the shape of a cone. The maximum angular distance across this cone will be 90 degrees. But the majority of the hat-pins are separated by acute angles that are considerably smaller than a right angle.

It is of some interest to compare the correlation table and the model. All of the information in the correlation table is represented in the model. If I should hand you a model of this kind, you would be able to reconstruct the correlation table by the simple rule by which the hat-pins are related.

The next objective is to describe each one of the tests in terms of the three primary mental abilities that are known to exist in the illustrative battery. These primary abilities would be represented in the model by the co-ordinate axes. But the model can be constructed uniquely from the inter-correlations without specifying any co-ordinate axes. We already have the model but it has no co-ordinate axes. We can put the x , y , and z axes in this model in the form of three additional hat-pins that we might represent by a different color to distinguish them. The mathematical indeterminacy of the factor problem is that the co-ordinate axes can be put anywhere we please in the center of the cork. If we adopt any particular frame of co-ordinate axes and if we name the axes by letters or by psychological names, then we can describe each test in terms of its projection on each of the three primary axes. But such a description would not be of any scientific interest because we are using an arbitrary set of axes or reference traits.

My first attempt to solve this problem was to find a mathematically unique solution in terms of the principal axes of the configuration. There was a certain satisfaction in finding this mathematically unique solution because it takes a rather neat mathematical form. I used this method in one of my first studies, but I had to discard the solution when I realized

that the factorial description of a particular test could be altered arbitrarily by inserting it in different test batteries. The mental abilities involved in a particular test would then depend on the tests that I would give the same subjects perhaps next week, and which I, as the investigator, might incorporate in the same battery. We found it necessary, therefore, to discard a mathematically interesting solution because it gave results which were scientifically and psychologically absurd.

As long as we looked at the problem in a formal and mathematical way, there seemed to be no unique solution because the reference frame of the three co-ordinate axes can be attached to the central cork in the model in an infinite number of ways. The solution that we have found can be stated mathematically, but it did not occur to us as long as the problem was stated only mathematically. The indeterminacy seemed clear enough when mathematically stated, and yet it seems equally clear to scientists that a particular set of primary abilities may nevertheless exist. I puzzled over this problem for several months until it occurred to me that a unique solution could be found by taking advantage of psychological and scientific considerations as distinct from the merely formal and mathematical statement of the problem.

Let us now look at the problem with a few simple psychological considerations in mind. Let us suppose that there exists a set of primary abilities such as, for example, verbal facility, vocabulary, number facility, ability to visualize, ability to memorize, ability to rhyme, etc. Let us turn to a battery of psychological tests and examine each of the tests. If mental performances are to be differentiated markedly by various abilities that they demand, then we should hardly expect that a test of synonyms would demand number facility and the ability to visualize. On the other hand, a test involving riders in geometry would probably not demand either vocabulary or verbal fluency. Certain types of geometrical construction might not even call for any number facility.

Here we are dealing with a second application of the universal principle of parsimony in science. First we wanted to know the smallest possible number of factors that would account for the intercorrelations of the tests. Now, having determined that a battery as a whole contains, let us say, ten factors, we are led by psychological considerations to demand that the ten factors be so chosen as to reduce to a minimum the number of factors that are significantly involved in each one of the separate tests.

Returning to the simple three-dimensional model with the hat-pins, we are now asking that the reference frame of the three co-ordinate axes be so placed in the central cork that, as far as possible, each hat-pin lies in one or more co-ordinate planes. We have now resolved the indeterminacy by stating in mathematical terms a few simple psychological considerations. When the reference frame of the co-ordinate axes can be placed in the test configuration according to this principle of minimizing the number of factors for each test, in addition to minimizing the number of factors for the battery as a whole, we describe the result as a "simple configuration or structure."

There is no guaranty beforehand that a test battery will show a simple configuration. If we start with five or six tests which demand as many factors as there are tests, then we cannot construct a unique configuration at all. Then we never even reach the indeterminacy of the co-ordinate axes. The successful application of the factorial methods demands that we start with a test battery of many more tests than there are factors. But this is no new restriction in science. This restriction is universal in all science, namely, that in order to demonstrate the plausibility of a hypothesis it must be considerably overdetermined by the experimental data.

Let us now turn to the numerical form of the solution which we must have for practical purposes as well as for convenient scientific discourse. The numerical description of a simple configuration consists in the statement that the total

variance of a particular test contains so much of ability number 1, so much of ability number 2, etc. When this information is summarized in the form of a table, we call it a "factorial matrix." Such a table shows the factorial constitution of each test in the battery. The characteristics of a simple configuration, which we have just discussed geometrically, can also be stated numerically in the demand that the co-ordinate axes shall be so placed as to maximize the number of zero entries in the factorial matrix. This matrix is the first principal objective in a factor problem.

There remains the final step in factor analysis. We are, of course, interested to discover that a certain number of factors are required by each of the separate tests, but the practical objective is the appraisal of each individual person as regards his primary abilities and traits. If we have a person's score in each test of the battery, and if we know the saturation of each of the abilities in every one of the tests, then we can compute in a rather simple way the standard score of each person in each of the primary abilities. The accuracy with which this can be done can be estimated by the known saturation of the abilities in the tests and by the number of tests that represent each ability. This is the practical objective for educational and vocational counseling.

Two years ago we devised a new set of psychological tests that represent quite adequately the tests that are in current use. These tests involved fifteen hours of testing, which was completed by 240 volunteers. There were 1,540 coefficients in the correlational matrix. These intercorrelations were analyzed to twelve factors, which seem to be sufficient to account for the intercorrelations. A great deal of work has been done in trying different methods of rotating the configuration into a simple structure. As the successive axes have been determined, it has been of psychological interest to inquire about the nature of each ability, so that we have identified seven primary abilities with some confidence. We have hypotheses about the psychological nature of several addi-

tional factors that are not conspicuously present in our battery. The psychological identification or naming of each factor is done in terms of the tests which are heavily saturated with the factor. Most of the factors that we have identified have appeared in previous studies by Kelley, Spearman, and others, in the form of group factors. This added to our confidence in their identification because several approaches to this problem that differ in technique seem to be in agreement as regards the nature of the factors. It was not until quite recently that it became possible to appraise the abilities of each individual by factorial methods.

A preliminary report of this study has been published in *Psychometrika*. I shall illustrate here by lantern slides some of the tests that have large saturations with each factor, and I shall describe our efforts to identify psychologically the nature of each factor.*

The factors that have been identified in this study are nearly uncorrelated. By this we mean that their intercorrelations are near zero, with one conspicuous exception. The abilities are essentially uncorrelated except for visualizing and number. This intercorrelation is about .40. These two abilities are so sharply defined that it is not likely that this intercorrelation is due to a chance variation.

By these tests it is now possible to describe each individual in terms of at least seven indices which should replace the intelligence quotient, mental age, and other gross scores of general intelligence. The material that we have used for this analysis is typical of the content of current intelligence tests, and we have seen that these tests break up into psychologically distinct elements that we have tried to characterize. Each individual should be described in terms of a profile of mental abilities instead of by a single index of intelligence.

*The illustrative slides shown on the screen and discussed at this point are regretfully omitted because of space limitations, and because no record of the oral explanations is available.

It seems that a mental profile of each individual will be more helpful in educational and in vocational counseling than the single composite intelligence rating that has been in current use for many years. I do not mean to imply that the intelligence ratings are useless. On the contrary, they are very useful, but we can now describe mental endowment more accurately in terms of several independent factors or primary abilities.

The 240 subjects who volunteered for this study, in which seven primary factors have been identified, were an unusually superior group of university students. We have determined the weights for these tests for each primary ability for these students. Before releasing the tests for general use, it is essential that the system of saturation weights be verified on younger populations that are not so highly selected. We do not yet know to what extent the saturation weights may be influenced by the selection of the subjects. It is conceivable that the weights for the various tests will change for different age groups. This question must be answered before the tests are released for general use in the schools. This is the problem on which we are now at work, and some evidence on this question should be available next spring.

A further refinement in our comprehension of each one of the primary abilities should be studied in special experiments which must be devised for each factor. For example, the six memory tests in our battery behave as though memory were a single factor. There is some indication that one of the residual factors involves some form of recognition as distinct from rote memory recall. There is also the possibility that ability to memorize rote material is distinct from unintentional memory. It is conceivable that a man may be able to memorize when he sets himself the task to do so, while he is unable to recall the detail of recent experiences. These questions demand special experiments in which the tests are set up so as to represent the various types of retention in a conspicuous manner.

Two verbal factors have appeared. In order to study further the exact limitations of each of these factors, we must set up special experiments in which each one of these factors is involved in predetermined ways. A subsequent factor analysis will then reveal which of various detailed interpretations is the correct one.

I can illustrate this procedure in terms of an example. When we were trying to interpret one of the verbal factors, it occurred to us that perhaps it could be characterized as an auditory factor in which the subject dealt primarily with the sound of words as distinct from their logical meanings. If we had seriously entertained such a hypothesis, then we could set up an experiment including these tests and also some tests that are conspicuously auditory in character. If the factor analysis should place this particular verbal test in the same column with the conspicuously auditory tests, then the hypothesis would be sustained. On the other hand, if the auditory tests should add a new factor with low saturation for the verbal tests, then the hypothesis would be disproved. In this general way we can answer many fundamentally psychological questions experimentally and we can avoid much fruitless debate.

The perceptual factor should be studied experimentally in relation to psychological experiments in order to ascertain whether the perceptual factor is limited as to modalities. In general, I believe that the most fruitful results will be obtained in factorial studies if the tests are made as simple as possible so that each test involves a very small number of primary factors.

The separation of the various types of reasoning tests into two groups is of great psychological interest. We have tentatively identified these two factors as induction and deduction. The test battery was not primarily set up for this type of classification. This lead should be followed out by further experimentation with tests that are devised especially to feature induction or deduction in so far as they can be separated

in psychological tests. So far the indication seems to be that some people are superior in inductive reasoning without being superior in deduction, and vice versa. This seems to be psychologically plausible, but it is not at all unlikely that these particular names will be revised in the light of further experimental study.

The appearance of a number factor of narrow range is interesting in view of the fact that the numerical processes are in large part determined by social convention. It might happen that the primary ability that is heavily saturated in the simple numerical tests is not really numerical in character. It may be that the factor is of broader range, but that it made its appearance in this particular test battery in the number tests. As far as we can tell from present results, the factor is sharply defined in tests of the simple numerical processes. It remains for further study to ascertain whether the factor is definitely limited to number or whether it is something more general, of which the numerical processes are excellent examples.

The visualizing factor is very clear in our results, but we cannot yet say with confidence whether the ability to visualize flat space is different from the ability to visualize in solid space. Our experimental results show no separation between these two types of tests. On psychological considerations one might question whether kinesthesia also represents one or more primary abilities, as we have seen in the case of visualizing. This is a question of fact that can again be answered on experimental bases. It would be necessary to include tests that involve various forms of kinesthetic imagery. It may be difficult to separate visualizing completely from kinesthesia, but tests can certainly be devised which emphasize one and minimize the other.

This problem also suggests the industrial and vocational possibilities of a factor analysis of various forms of manual skill. It is quite likely that manual skill is composed of contributions of various primary factors that can be isolated by the same methods.

Some preliminary tabulations have been made of the vocational interests of the subjects of our experiment. There are rather clear lines with occasional striking differentiation. For example, I found a mental profile of one of our subjects with a conspicuously high score in visualizing and average scores in the other abilities, in comparison with a superior group of college students. I turned to the vocational interest schedule for this subject, and I found that his first vocational choice was to be a cartoonist. In the interpretation of vocational interests, I have found it necessary to study the profile of each man rather than to compare him in each ability with other students. For example, one student was below the average of this superior group in all of the seven primary abilities, and yet he gave mathematics and physics as his first choice. By referring to his profile, I discovered that, although his scores were all below the average of this particular group of subjects, his relatively highest scores were in visualizing, number, and induction. The students who chose literary occupations or journalism were invariably high in the word fluency factor. This type of comparison between the profiles of individuals and their vocational interests deserves a great deal of careful study.

One of the most interesting scientific problems in this field is to ascertain the extent to which the primary abilities are inherited and to what extent they are socially determined in relation to interests. If some of these primary abilities are determined largely by inheritance, we must work with the geneticists on human inheritance.

Another type of exploration must be made to ascertain the growth curves of each primary ability. It is conceivable that some primary abilities mature earlier than others, and that some of these primaries may be identified in young children. It might even be possible to diagnose some of the primary abilities of first grade children. It is not inconceivable that differential methods of instruction in reading should be determined by the mental profiles.

I have sketched the general nature of the factor problem in so far as it can be described without mathematical formulation, and I have described the principal findings in an experimental study with psychological tests. We feel quite certain that seven of the primary abilities have been isolated with sufficient certainty to be of practical use in educational and vocational counseling. We should not commit ourselves about the total number of primary abilities. There may be hundreds of primary abilities, but it is my belief that a chart list of the socially most important primary abilities will be adequate for most educational purposes, and it now seems likely that in a year or two practical methods for appraising some of these abilities will be available.

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Rural Education and the Teacher

COUNTRY life is beginning to get attention and interest in America unequalled since colonial days. Rural schools are receiving thought and planning that they have not had since that remote period when the little red school house was a term of praise.

For a century and a half American life and American ambition have followed a strangely contradictory course. While our territorial history has been the conquering and cultivation of ever new and greater lands, our economic and cultural interests have been increasingly urban and industrial. The new nation came into being just as the industrial revolution was getting into full swing. We grew up with the machine age. Our national history is contemporaneous with the marvels and efficiencies of mechanics and organized industry. So while we kept swallowing up huge new territories—the Western Reserve, the Mississippi Valley, Florida, Louisiana, the Southwest, the Northwest, California—our interest really has not been in land but in machines. Today, although this nation spreads over the better part of a whole great continent, over half our population is classed as urban—that is, living in cities and towns of over 2,500. But much more than in mere residence, our interests and our ambitions have centered in city life and in industry.

The school has been one of the strong factors in this urbanizing trend. As children climbed the educational ladder, they moved from the local common school to the high school, which was usually in a larger town, and to the college or university, which was almost always in a sizeable city. The literacy subjects, which are the body of the school course, naturally turned the child's interest during the most impressionable years away from handwork, agriculture, and the local scene. The wealth of educational material in nature and in the human struggle, which is all about one on the farm, have

been almost entirely neglected in the school curriculum, with the result that the procedures of country life have held neither the interest nor the prestige that comes from recognition by the school. The curriculum has been set by educators who, in so far as they are influential, are almost always working from the strategic base of city office; it has been administered by officials living in the capitals of the various states. Teachers have been trained in colleges or normal schools, most of which have been in cities. In the teaching service the lines of promotion, both in money and in prestige, have run from the country to the city. The rural school has slavishly aped the city school in routine and formal drills. These formalistic schools have been as active as any agency in carrying children's attention and ambitions from the country to the city.

All that is beginning to change. I do not claim that any spectacular movement back to the soil has set in. Even during the depths of the depression there was no mass migration back to the nourishing bosom of Mother Nature. Mechanical invention still continues; industrial efficiency proceeds; the labor-saving devices of machinery and mass production are steadily developing. And no sensible man can regret the advances which make it possible for more and more necessities, conveniences, and luxuries to be produced so that greater numbers of the total population can share in this enlarging wealth. But the peak of urban glamor seems to have passed. Even though the development of the machine will continue and increase, the adulation of industrialism as the be-all and end-all of human life has passed its zenith.

The present trend is not so much back to the country as back to a regard for humane living as contrasted with exclusive devotion to making a living. In this fresh regard for the content and quality of life itself, country life takes its place on its own merits, not necessarily above tenement and apartment living in cities, but simply as one of the potentially satisfying ways of life. It isn't that rural life is being made a cult—God forbid. It is simply that the cult of urbanization and indus-

trialism has ceased to hypnotize. Freed from the treadmill of slavery to money as contrasted to real wealth, with eyes no longer blinded by the garish neon lights of "success," with a little mitigation in the mad rush to keep up with the Joneses, the satisfactions of life in the country are now receiving sympathetic and realistic attention. The rural school no longer need think of itself chiefly as a means of training for success in the city; it can concern itself with the problems of rural life and with education as a means to richer and fuller living in the country.

Before suggesting the revisions that seem necessary, let us remind ourselves of what the rural school is. Even educators easily forget or sentimentalize the humble institution which used to be called the little red school house. The school throughout rural America is still in most cases a one-room or two-room building with one or two teachers—almost always women—drilling children from the ages of six years to twelve or fifteen years in all the subjects listed in the first three to eight grades of our public school system. It is true that consolidated schools are steadily increasing and are to some degree supplanting the little ungraded schools. But in such states as New York and Illinois, as well as in much of the South, the countryside is still supplied by more one- and two-teacher schools than by all the modern consolidations. And, as a matter of fact, there are certain arguments in favor of the smaller school. It is cheaper, since it does not involve the huge expense of transportation which has run up the costs of consolidation. And—much more important—the school is or may be an important influence in the rural neighborhood. When local district schools are wiped out by a consolidated institution, the children may get more efficient instruction, but the local neighborhood loses its once social force.

These little rural schools spend their time almost entirely in routine drills in the literacy subjects and in rehearsing scholastic fragments of history, civics, geography, and other formal lessons. They are taught by women who, for the most

part, are in rural schools only because they have not been able to get jobs in the better paid and more attractive city schools. The officials, in the form of county superintendents or rural supervisors, are often chosen for their political standing rather than for their competence or their interest in schools. The district trustees—an antiquated political organization which still persists in many rustic regions—are often a burden rather than a benefit to the educational process. In the state of Illinois there are today more educational officers—chiefly district trustees—than there are teachers in the whole school system. Incompetence, formalism, poverty, lack of prestige are characteristic of what should be the most vital unit of our whole educational program.

In the South in my youth we used to call the local committee "the Deestriest trustees." And the measure of their learning was illustrated by this story. The Deestriest Committee one day went on its annual pilgrimage to "visit school." Entering the classroom, of course they threw the teacher and the pupils into a dither of self-consciousness. But, trying to carry on and hoping to make a showing, the teacher called one boy to the front and asked him, "Who signed the Magna Carta?"

The boy stammered and rubbed one foot up and down the shin of the other leg.

"Come, come, James," said the teacher, "surely you know the answer. Who signed the Magna Carta?"

Finally the boy blurted out, "I don't know. I didn't do it," and, rubbing his eyes, started back to his seat.

But one of the Deestriest trustees leaned forward and shouted: "Teacher, call that boy back. I don't like his face. I'll bet he done it."

The conditions of the average rural schools, the lack of educational facilities and educational impetus which mark them, can be believed only if one visits them and studies them. My grandfather, who was a very godly man much interested in theology and religious rites, once asked a chance acquaint-

ance: "Do you believe in total immersion?" and received the astonishing reply, "Believe in it? Hell, I've seen it done." Only by seeing can one believe in the uneducational conditions which today surround the rural school.

The fortunate thing—the best evidence of the rural renaissance—is that a good many people are now studying the country school and taking an interest in transforming it from formal routine into an instrument of education and of social enrichment. One of the agencies which is especially active is the Council on Rural Education established and financed by the Julius Rosenwald Fund for work in the rural schools of the South. This is only one of many fresh forces. The Progressive Education Association is turning a part of its attention from the education of favored children in private schools to reform in the public schools for all the children, including the rural children. University departments of education are viewing again the primary school and the education of the rural child. Individuals of fine attainments are voluntarily leaving the higher schools and the towns to devote their efforts to making the rural elementary school a vital force in American life.

All who are working on these rural problems agree that the country school must break away from scholastic tradition, that it must plan its work afresh on the basis of what is sound education for the rural child and sound influence for the rural community. They also agree that in planning new programs we must always keep in mind what is feasible in the light of present conditions or of improvements which may be reasonably expected. We must remember that today and for many years to come we must get along with fairly mediocre teachers and with fairly low levels of support. It is proper, of course, to aim at higher standards but it is nonsense to set up models which are clear above possible achievement in the average rural community. Here many professional educators fail. They insist on planning ideal programs to be carried out by brilliant and resourceful teachers with ample support from

enlightened communities. That is silly. And a few of the wisest of the professors of education are beginning to recognize conditions as they exist and to plan with some regard for reality. If one is to influence rural education over any wide area he must simplify procedure so that it can be understood and applied by common people; he must plan his programs so that they can be built upon existing human and material resources.

The purpose of education is to develop the individual and to fit him for happy and useful living in the society and the environment in which he will make his life. What are the essentials of preparation that children need for successful rural living under modern conditions? Five items stand out.

1. The ability to read (and write) clearly and understandingly.
2. Some skill in the use of figures.
3. Knowledge of farming, including some general understanding of biological processes and an appreciation of nature.
4. Manual dexterity, especially in the handling of wood, fabrics, and other materials, and in simple mechanics.
5. Health.

These are self-evident necessities for any successful life in the country. It seems naive to argue the need of education in such obvious items. But the simple fact is that rural children are not getting from their schools anything approaching adequate preparation in these fundamentals.

Reading is, of course, the first commandment even among the basic three R's. No one can live as a competent member of modern society without this essential tool. If a child can and does read he can care for the rest of his education by his own efforts. The difference between educated and uneducated people is almost entirely the difference in the range and understanding of their reading. Abraham Lincoln was one of the best educated of men in spite of meager schooling—because he read so avidly.

Schools—rural or urban—need take no credit for educating their pupils until this essential of learning to read is fully achieved. Almost the whole of the elementary school may be regarded as practice in reading. And reading, by the same token, should not be thought of as a “lesson,” something to be had from a special class or a special set of textbooks, but as the means of mastery of all the subjects and projects which make up school life—and all life. The fundamental task—ill done in present schools—is to enable the child to learn to read.

Expression in written and oral language is the obverse of reading. It is a part of the process of gaining acquaintance and competence in the use of that amazing social tool—one of the most important inventions man has ever made—the communication of ideas by words. Penmanship and spelling are among the mechanics of writing; the ability to express one's self clearly and effectively is a higher aspect of the same process.

Ability to deal with numbers and figures is another of the essentials of modern life. The place of arithmetic in the school program needs no argument. It may be pointed out, however, that the goal is not knowledge of special traditional tricks of formal mathematics but a general understanding of the concept of number as a tool, together with skill in handling the usually very simple problems of everyday life. The task of arithmetic is really very easy if teachers would only set themselves to it. It is also very important, but this importance has to do with real life, not with a lot of crossword puzzle work, however hallowed these puzzles may be by history and tradition.

The remaining subjects on the list fall into another class. They are recognized as needed preparation for living, especially in the country. But they are not generally recognized as a part of school work. Yet if we think of education as the leading out of a child's capacities, as the development of him to be happy in himself and effective in his community, we

must plan not in terms of traditional school disciplines but in terms of what the child needs as preparation for his life.

I am not urging farming and manual training as vocational subjects. The education here should be just as general as that in reading or arithmetic or other present school subjects. Agriculture and manual dexterity should be learned just as practically as writing or figuring but also as broadly and generally as any so-called academic subject.

An understanding of farming carries one as far as he cares to go in the study of nature and of biology, yet it has all the interest of life and the making of a living, all the definiteness and concreteness of specific tasks in planting, breeding, cultivating, and harvesting. No one can deny the influence upon modern life of skill in bending nature to our needs; no one can deny the rich field of learning in the general and special study of nature. If the school has not yet organized these rich and living topics so that they can be readily acquired by pupils, it is high time it did so. With all due modesty I suggest that an exact knowledge of how to manipulate corn and cows and honey bees is even more enlightening (as well as more useful) than intimate acquaintance with the vagaries of least common denominators, lists of the Kings of England, or other traditional tricks of the schoolmaster's trade.

Manual dexterity is equally necessary to the country boy. It is not merely that he be enabled to mend a broken chair or tinker with an automobile—important as these are—but also that he be given an outlet for creative work in making objects both useful and beautiful. This is not a suggestion that we repudiate machine production and return to a hand-craft economy. But machines and hand skill should supplement each other. Much furniture, building, decoration, and clothing can be made more beautifully by hand than by any machine, and much more cheaply for the man who makes them. The person who can use his hands with a master's skill in building a house, painting a picture, playing the violin, or weaving cloth has a means of expression that is about as

nearly godlike as a human being can achieve. He also has a pretty sure foundation for making a living.

In connection with these arts of living, of course, attention will be given to the home as well as to the farm. Cooking, dressmaking, and housekeeping are natural partners of carpentry and planting.

Health is a more difficult subject for the school. The laws of bacteriology and physiology which underlie disease and the protection of health are so intricate as to be beyond the grasp of children. Furthermore, protection against the great contagions often requires public rather than private action.

Yet health is so important to any sort of robust living that every child should have some knowledge of its basic laws, some competence in protecting himself and his companions from the commoner diseases. This is especially true in the country, where public sanitation is apt to be less developed than in cities and where the struggle against disease is more nearly an individual or family matter. Some acquaintance with proper balance in diet is also essential, for, in spite of the supposed presence of nourishing and wholesome foods on the farm, rural eating is apt to fall into meager and ill-balanced patterns. Since poor country diet often results from the absence of diversity of crops, health and gardening become supplementary subjects. At the moment health is probably the most unsatisfactory of all school courses. Anyone who can devise good courses, stimulating projects, and wholesome procedures for the school in this topic will be a public benefactor.

These five subjects I submit as the essentials of the elementary school in a rural district. If children gain competence in these, they may live happily and successfully. Surely the learning of five broad topics is not too much to expect from the six to eight years of the common school. The reason these, or any other subjects, are not mastered is that the school attempts to cram a great multitude of lessons into the brief days. A plethora of "subjects"—artificial fragments of

knowledge—are “required” in the elementary course: reading, writing, spelling, arithmetic, geography, history, civics, physical exercise, hygiene, literature, shop work, often a whole series of specialized hand drills, such as sewing, carpentry, cooking, mechanics, and sometimes little arbitrary subdivisions of the sciences. It is not surprising that teachers driven by fantastic schedules of rote lessons fail to offer real education in any subject, or that children hurried from class to class come to regard school as a place for reciting rather than for learning.

I have not listed social studies among the subjects of the rural school because it seems to me that the whole school should be organized around the social setting. And the school which realizes its full functions, especially in the country districts, simply has to be at work improving and leavening the social life of the community. Social relationships and community life should not be a lesson in the elementary school; they should be the school.

It may be thought narrow for the rural school to emphasize rural problems since in the mobility of American life so many of its pupils eventually find themselves living in cities. The answer to that is that any sound education must start with things as they are, with the experience and interest which the child already has. One reason rural education has been so futile is that it has cultivated almost none of the natural interests and native experiences of the country child. A further answer is that what we are advocating is not at all a narrow or vocational training but a broad general education rooted in the experiences and interests of the rural child and branching into the fundamental tools and principles necessary for successful living anywhere in the modern world.

For the rural school to accomplish the simple but fundamental tasks that we have outlined, all that is needed is good teachers. But good teaching is just the thing that rural schools in America do not have. To accomplish the purposes of education in the country the teacher, especially in the little one- or

two-room school, should be really a superhuman being. She should be, in her single person, teacher, farm agent, health officer, preacher, librarian, social worker. We know that she will never be all of these to perfection. At present she is no one of them.

To provide good teaching two things are essential: better salaries and better selection and preparation. Other things are desirable, but if these essentials are provided the other things will take care of themselves. For example, better materials of instruction are acutely needed. But if normal schools concern themselves with the real needs of teacher preparation they will be creating teaching materials as a part of their regular work. Again, a wise and efficient school organization is necessary if there is to be effective education. But any school system which can be brought to the point of furnishing good preparation for its teachers and of recognizing in dollars the value of good teaching may be relied upon to exhibit wisdom in other aspects of organization and administration.

The two pillars on which the hope of good teaching rests are salaries and education.

I shall not pause to discuss the first except to point out that at present our salary scale is inverted. We pay more the higher the grade and the larger the center in which the instruction is given. As a matter of fact, the early years are the all-important ones in education and human growth, and the problems and potential influence of the teacher for good or ill is much greater in the country than in the city, in the one- and two-room school than in the consolidated institution.

The particular problem that concerns us is preparation. In the first place, the great need is for sound general education—as much of it as each teacher is able to get. A truly educated person can be trusted with any problem. If he hasn't the specialized skills he can easily acquire them. But, if he hasn't a generally developed intelligence, any amount of special professional training is at best a poor veneer. This is

true even in such high specialties as medicine and law. It is true in teaching.

But professional preparation is also requisite to skill and competence in teaching, just as it is in other professions. I have time only to enumerate items in the professional preparation that seem to me of special importance for the rural teacher.

1. She should learn the efficient methods that have been worked out for teaching the tool subjects, especially reading.

2. She should learn as much as possible not only of general subject matter—book learning—but she should know also as much as possible about the major aspects of rural life, especially farming, handicrafts, and health. And she should know how to utilize the public services in these fields to help the school meet its full responsibilities to the children and to the community.

3. She should learn the handling of rural problems in the midst of actual contact with them in rural settings. Field experience is essential both for the pupil teacher and for the teacher of teachers. Acquaintance and experience with rural matters is just as necessary to the person who wants competence in rural living as actual experience in the use of figures is to one who wants to learn and to teach arithmetic, just as necessary as the actual handling of chemicals is to the student or teacher of chemistry.

The best single device for the education of rural teachers recently invented is that magnificent concept of the Mexicans: the cultural mission or normal school field unit. This brilliant invention provides at one swoop a system of guided experience for the pupil teacher, a method of in-service training for teachers already on the job, a method of supervision of rural schools by the Teachers College, a means of involving the pupils and teachers and the whole educational machinery in the general lifting up of community life. And it provides a means of insuring co-operative work by all the public agencies—education, health, agriculture, library service, home economics—in a concerted effort in behalf of rural life.

As to the possibilities of fashioning and instituting sound education for the rural teacher, I am completely optimistic. The getting of adequate salaries is going to be much more difficult, but even now in certain places, notably British Columbia, the wise though revolutionary practice is already established of paying elementary teachers a living wage and of giving the larger salaries to those who teach in the smaller and rural communities. In fact I am persuaded that we are on the eve of notable improvement and enrichment in the service and the influence of the school in America, especially the rural school. The convincing thing is that many wise people and powerful agencies are setting themselves firmly and vigorously to the task. Heaven knows America has wealth enough to transform even so huge and expensive a service as education. And I believe we are sufficiently intelligent and resourceful to make of the common school system something approaching the ideal to which America has always clung with almost mystical faith.

EDWIN R. EMBREE,
President, Julius Rosenwald Fund

Informal Question and Answer Session

DEAN C. M. McConn of Lehigh University presided at the question and answer session which was open to general discussion, but in which much of the time was used in a discussion of the excellent papers which had been given at the afternoon session by Dr. E. F. Lindquist of the State University of Iowa and Dr. Richard D. Allen of the Providence Public Schools. About one hundred fifty persons attended the session. Dr. Lindquist and Dr. Allen were present as discussion leaders.

Dean McConn asked first about the validity and reliability of test scores in individual cases. Dr. Lindquist in discussing this point said that there was considerable confusion in regard to group norms and individual standards. The norm is a central tendency and is not intended for the evaluation of individual performance, particularly with regard to success of instruction. There must be different standards for each school and for each pupil. What may be considered satisfactory for one student may not be at all the standard that may be applied in another situation. The individual's performance should be evaluated in terms of his standard and must take into consideration such things as differences in ability, in curriculum, and in out-of-school advantages.

Dean McConn said that in his counseling work he found that he could not depend too much on a single test score. He thought, however, that a high score on an intelligence test was much more reliable than a low score. A poor score on a freshman intelligence test may not represent a student's real ability but may be influenced by some such factor as too much fraternity initiation. Dr. Lindquist felt that this observation pointed to the necessity for insisting upon an accumulation of evidence before making a decision. A series of measurements will eliminate the influence of any peculiar circumstances. Experimental evidence shows, however, that one's

physical condition does not seem to make as much difference in the test results as might be expected.

The question was raised about the value of vocabulary tests for testing intelligence. Dr. Lindquist replied that a vocabulary test does give a single rough descriptive index but that it is not diagnostic. Dr. Allen added that it seemed very unfortunate to accept a single index when one can obtain a series of measurements, including scores on non-linguistic tests, which will be diagnostic. He called attention to the fact that the validity of an intelligence test is dependent on the assumption of a fairly common background of experience among those tested. Some people have been handicapped by their environment and should not be measured by the ordinary intelligence test. Too often people make the mistake of confusing literacy with intelligence.

It was suggested that certain aptitude tests might be used in some cases where a linguistic test could not be applied. Those who had used aptitude tests, such as the Wiggly Block Test, felt that all aptitude tests have only a limited application. High scores on aptitude tests have less diagnostic and guidance value than low scores and there are greater dangers in trying to predict success than in predicting failure.

Dean McConn asked Dr. Allen to discuss the problem of parent co-operation in guidance. Dr. Allen said that an ideal program would bring the parents into consultation all the way through school starting in the kindergarten, but that no school had yet worked out such a system. Some schools use the Parent-Teachers Association in an effort to explain group guidance, but often those parents who need it most don't come to the meetings. In Providence the parents are asked to approve the choices of courses that the pupils make for the next term. When the parent overrules the choice of electives that the pupil and counselor have worked out he is asked to come for a conference with the counselor. Parents do not wish to have decisions made for them, although they are very appreciative of the help and individual attention given to

their children. In problem cases the teacher may visit the home, and the feeling on the part of the parent that the counselor is interested enough to go to the home often brings about the better understanding necessary to solve the problem.

Someone asked Dr. Allen about the distribution of counselors among the instructional fields. He replied that just what the counselor teaches is unimportant and that the main thing is to get the right kind of person. Five things to look for in selecting counselors are: (1) a good subject teacher, (2) someone the pupils naturally seek, (3) somebody that can get along with other teachers, (4) a person with a flair for research who is interested in finding out what facts mean, and (5) someone who is professional in his attitude and who is willing to learn.

How can the counselor avoid giving the child a definite social philosophy and assuming too much responsibility for molding the student's mind? In replying to this question, Dr. Allen said that teachers have always done this. Chance remarks such as "With your head for mathematics you ought to be an engineer," have always influenced the pupil's choice. The casual guidance of the subject teacher is usually less competent than that of the counselor. Often the counselor's rôle is not to make decisions for the child, but to prevent him from making a hasty and unwise choice. The counselors make follow-up studies after their classes have been out of high school three, five, and ten years, in order that they may check up and see the results of their own methods.

If we stress occupational guidance in the secondary school are we assuming that most of the pupils do not go to college? Shouldn't they wait until they go to college to make this decision? Dr. Allen felt that the more gradual the decision the wiser it is apt to be, and that whether or not a pupil is going to college should be taken into consideration in the making of an occupational choice. Dean McConn said his experience would lead him to believe that if a boy comes to college with a professional goal even if he changes it after a

year or two, as he often does and even more often should, it is still an advantage to him to have a goal when he comes. The boys who have no idea what they want to do are problems.

A number of questions were asked about the content and details of administration of a group guidance course at the various levels. The following is a summary of Dr. Allen's remarks in answer to these questions.

The group guidance work in Providence is described in detail in Dr. Allen's four volumes in the Inor Group Guidance Series. Volume IV, *Organization and Supervision of Guidance in Public Education*, is a manual showing the problems of the organization of guidance and the first three volumes include the basic units of the guidance course. Such questions as the following are considered in the course: How can I find out what my real interests are? How can I improve my ability to get along with people? Should I plan to go to college? The volumes contain many illustrative cases for group discussion.

In the junior high school an attempt is made to lay a broad basis of occupational information. Then at the end of the ninth grade the pupils present a kind of scrap book of some occupation of their choice. The pride they take in these career books is beyond belief. This is an ideal activity project because if pupils are interested in anything it is in their own personal relations and problems. Twenty years ago there was almost no material on occupations for the junior and senior high school level but now there is a wealth of suitable material. When the content of a guidance course has been well worked out it is easy to convince principals and teachers that group guidance is as much a real part of a general education as literature or mathematics, for example.

When guidance is an administrative function, it is often just the presentation to the pupil of what is thought to be the solution or right answer. As an instructional method guidance means helping the pupil to think through a problem so

that he will be able to find the right answer for himself. The instructional method trains the pupil for self-guidance, so that he will know what to do when the next problem comes along.

It is probably better to make the guidance course extensive rather than intensive. Some schools give a five-hour course in one year, but in Providence it has been found better to give a two-hour course during all six years of junior and senior high school. The course is used as a continuous contact between counselor and pupils, and serves to keep up the interest of the pupil over a long period of time. Probably the guidance course should not be strictly required, though the pupil might be required at least to try the course for a while before deciding that he was not interested in taking it.

In Providence there is one counselor for each entering class in junior and senior high school. This means that there are from 200 to 300 pupils to a counselor. The counselor takes the group entering junior high school and carries it through all three years, making all necessary program adjustments and teaching the group guidance course.

At the college level occupational problems, personal and social relations, and self-measurement problems might be discussed in a continuous orientation course during the freshman year. Freshman week is a splendid idea, but you can't do a good job of guidance in one week. A great deal of material is now available which is suitable for a group guidance course for freshmen. Dr. Crawford's book on occupations and the occupational monographs of the American Council on Education are examples of the type of material that might be used. The course should be given primarily on the basis of discussions rather than of lectures.

Dean McConn asked Dr. Lindquist about the usefulness of general tests which are unrelated to defined units of instruction. Dr. Lindquist replied that the most important advantage of the general test is that it frees the problem of test construction from the traditional limitations of the present school curriculum. The general test gives an opportunity of

periodically re-evaluating the general educational aims and stating those aims in terms of test achievement. It is difficult to describe the character of tests that would be most useful for this purpose because of a lack of agreement on ultimate objectives. We do recognize, however, that there are certain things we want the student to have, and the general test can be used to discover special abilities and specific deficiencies. The practice of giving the tests in the fall tends to divorce test results from the regular curriculum set-up and emphasizes the importance of their use for guidance purposes.

In the Pennsylvania Study Dean McConn found that some engineering students did much better on a general culture test than some students who had been taking the liberal arts curriculum. The high test scores led a few of these engineers to change to the liberal arts curriculum where they did much better work than they had been doing in engineering. This test was useful in finding unrecognized interests and aptitudes which might never have been suspected under the regular examination system.

A mathematics teacher presented the point of view that no objective test can measure what the teacher is really trying to teach. She felt that the Co-operative Geometry Test, for example, failed to test the values she considered most important. The pupil who has developed the ability to solve complex problems does well on the tests, but the converse is not true. She thought that the geometry test should measure the ability to tackle complex problems.

Dr. Lindquist said that he had spoken on this question many times. It is true that the tests do not measure what teachers of plane geometry claim to be developing in their pupils. The claim is made that by teaching geometry you can develop a number of desirable attitudes. The assumption of the test maker is that, if through the teaching of geometry these attitudes can be developed, then it is essential first of all to measure the acquisition of geometry. The test maker is trying to describe differences between individuals, and one

cannot describe differences in terms of tasks that pupils cannot perform. Through experience it has been found that the only kind of items the pupils can handle are those of a fairly low level of difficulty.

One of the first principles is that the sheer arithmetic computation should be at the minimum in an objective test. It is extremely easy to find any number of difficult reasoning situations and original problems to try out the geniuses of mathematical ability, but very few of these items are needed because there are so few geniuses. In order to get a reliable description of the lower end of the scale, the real problem is to find easy problems that are still reliable. The pupils are often able to do relatively difficult problems if they are presented in conventional textbook form, but are unable to do the same problems if minor alterations are introduced such as changing the lettering of a diagram.

Dr. Allen felt that most teachers do not know about the care with which these tests are constructed. Every item is selected because it does distinguish between students. It is not a question of whether any one teacher thinks it is good, for each item has been proved and tested and the test as a whole has been validated. The more experience teachers have with tests of this type, the more they respect them. A very good statement on this question appears in the Inglis Lecture given by Dr. W. S. Learned, entitled "Realism in Education."

Dr. Lindquist was asked how many cases you should have before you can consider norms reasonably valid. He replied that this would depend on the variety and representativeness of the school situations represented. Norms based on a carefully selected sample of a thousand may be more useful than norms based on a group ten times that large.

The head of an independent school asked what was the advantage of having the scoring of tests done by the Educational Records Bureau rather than by the school. Dr. Lindquist replied that, all things considered, it was cheaper to have the scoring done at the Bureau. If the schools do the

scoring, they use people who are trained to do much more valuable work. The cost is hidden in the instructional budget, but it is there just the same. Scoring by a central agency adds to the reliability of the test results. Dr. Lincoln of the Lawrenceville School said that his school had tried both plans and had found that there was no financial advantage in having the scoring done locally. It was further pointed out that if very many schools scored the tests locally it would be impossible for the Educational Records Bureau to provide independent school percentiles which would be valuable. The Bureau is a co-operative venture, and by having tests scored at the Bureau each school shares in the cost of the norms and other services rendered by the Bureau.

Some one asked how much weight the colleges attach to E. R. B. percentiles as compared to College Board examinations. The feeling seemed to be that admissions officers found the E. R. B. test results very valuable, although as yet such results were available on only a small number of candidates for admission. The cumulative record gives a more complete picture of the abilities and achievements of the pupil than can be secured from the College Board scores alone. There is ample evidence that both E. R. B. and College Board tests have positive and complementary values for admission and guidance purposes. Mr. McClelland of Bard College said that in three years he had found no case in which a boy with a low E. R. B. percentile did not have difficulty immediately in that particular field.

At the close of the session Dr. Allen introduced Mr. Reynold Johnson as the inventor of the highly successful scoring machine which was demonstrated during the conference. In answer to questions, Mr. Johnson said that the scoring machine would be rented by the International Business Machines Corporation and that its rental would probably be a small fraction of a clerk's hire. It is hoped that the machine will be ready for general use early in the spring.

Sixth Annual Meeting of Institutional Members of the Educational Records Bureau

GEORGE A. WALTON, Principal of George School, Presiding

Resumés of Committee Reports

INDEPENDENT SCHOOLS ADVISORY COMMITTEE

Members

<i>Name</i>	<i>Institution</i>
Ralph D. Britton	Loomis School
Mary H. Dey	Mary C. Wheeler School
David R. Fall	Asheville School
Hart Fessenden	Fessenden School
Ira A. Flinner	Northwood School
Allan V. Heely	Lawrenceville School
Robert N. Hilkert	Hill School
Elizabeth F. Johnson	Baldwin School
Halleck Lefferts	Pomfret School
Katharine Lord	Winsor School
George B. Lovell	Hopkins Grammar School
Harold A. Nomer	Shady Side Academy
Endicott Peabody	Groton School
Harry A. Peters	University School, Cleveland
David R. Porter	Mount Hermon School
George B. Rogers	Phillips Exeter Academy
R. J. Shortlidge	Pawling School
Eugene R. Smith	Beaver Country Day School
E. Laurence Springer	Pingry School
Katharine Taylor	Shady Hill School
Dorothy Van Alstyne	Francis W. Parker School
George A. Walton	George School
James O. Wood	Chicago Latin School
Stanley R. Yarnall	Germantown Friends School

Frank C. Wheeler, The Choate School, Chairman

THE Independent Schools Advisory Committee met with the Committee on Relations between Elementary and Secondary Schools with the best attendance on record. The new members elected to the committee this year are Mr. James Wood of Chicago Latin School, Mr. Allan V. Heely of Lawrenceville School, and Mr. Stanley R. Yarnall of Germantown Friends School. According to the

plan of rotation, Mr. Camp of Chestnut Hill Academy, Mr. Hackett of Riverdale Country School, and your chairman retire from the committee at this time.

Dr. Wood, the director of the Bureau, reported on the relation of the new scoring machine to the Bureau testing programs. The machine scores tests of 150 items or less at the rate of about 1,000 an hour with greater accuracy than they can be scored by hand. Its chief usefulness will be in the testing work of a large public school system. The actual scoring of tests at the Bureau accounts for only about one-fourth of the cost of the service, so that the maximum reduction in the cost of the Bureau service would be some fraction of one-fourth of the present cost.

Dr. Wood also described the new "scaled score" technique of the Co-operative Test Service and its effect on Educational Records Bureau interpretative methods. The scaled score method gives a fixed point of reference, which is called 50, and expresses deviations from that point of reference in terms of uniformly equal units. A subcommittee was appointed to study this technique as it applies to the Bureau's method of reporting results. Mr. Fisher of St. Paul's School, Mr. Nomer of Shady Side Academy, Mr. Hilkert of the Hill School, Mr. Britton of Loomis School, and Mr. Wheeler are the members of this subcommittee.

There was considerable discussion of the most suitable time at which to administer the Educational Records Bureau achievement tests in both elementary and secondary schools. If schools are to use the Educational Records Bureau tests for Secondary Education Board preliminary examinations the tests must be available as early as the first of March. There was a feeling that two testing programs involving the same tests are inconvenient and unnecessary. The motion was passed, however, that the 1937 tests should be made available in March for those who wish to use them. The committee members reported a general trend toward using cumulative records for students transferring from one school to another and from elementary to secondary school.

(Later a motion was passed that the chairmen of the Independent Schools Advisory Committee and the Committee on Relations between Elementary and Secondary Schools unite in appointing a committee to formulate a concrete plan of action in regard to testing dates for presentation at the 1937 committee meeting. See report on meeting of Committee on Relations between Elementary and Secondary Schools.)

A motion was passed asking Mr. Britton of the Loomis School to collaborate with the Bureau in preparing a statement of uniform directions to students which would encourage the most constructive and desirable attitude toward the tests.

The nominating committee presented the name of Mr. Hilker of the Hill School for chairman of the committee for the coming year. He was unanimously elected.

Since the Elementary and Secondary School Committee held its meeting in conjunction with the Independent Schools Advisory Committee, the chair was then passed to Mr. Weld.

COMMITTEE ON RELATIONS BETWEEN ELEMENTARY AND SECONDARY SCHOOLS

Members

<i>Name</i>	<i>Institution</i>
Frank D. Ashburn	Brooks School
Thurston Chase, Jr.	Eaglebrook School
Hart Fessenden	Fessenden School
Thomas K. Fisher	St. Paul's School
Halleck Lefferts	Pomfret School
Francis Parkman	St. Mark's School
Clarke W. Slade	Washington Country School
E. H. Smith	Shady Hill School
H. S. Stockmeyer	Buckley School
Charles B. Weld	Taft School

Charles B. Weld, The Taft School, Chairman

The meeting of the Committee on Relations between Elementary and Secondary Schools was held in conjunction with the Independent Schools Advisory Committee.

The first matter considered was the report of the sub-

committee formed last fall under Dr. Parkman's chairmanship to consider ways and means of increasing interest in the constructive uses of comparable tests and cumulative records among new and member schools. Dr. Parkman reported that there had been a great deal of correspondence and considerable activity on the part of the committee in the way of "missionary work," that is, interesting schools in the work of the Bureau, but nothing very tangible in the way of direct results had been obtained. From the many contacts that had been made, however, he felt much good must eventually result.

Mr. Fisher was asked to make a report in regard to the admissions forms which had been requested from member schools and which had been assembled for consideration. He described some of the general types into which the forms might be classified and explained that he had not received the material in time to go over it carefully enough to make a definite report at this meeting. The motion was then passed that Mr. Fisher and Mr. Fessenden be appointed a committee to continue with this study of admission forms and report on its findings at the next annual meeting. One object of this study is to prepare an admissions blank which will include the best features of all forms and which, with the cumulative record card, will provide a more complete picture of the pupil.

The question was then raised as to what relationship should exist between this committee and the Independent Schools Advisory Committee, whether it should continue to function as an independent body or be considered as a subcommittee of the Independent Schools Advisory Committee. After a brief discussion it was decided that this committee should continue as a separate one but should meet with the Independent Schools Advisory Committee at the annual conference.

The question was discussed of educating schools in the more extensive use of cumulative records by preparing cards for transfer purposes for all pupils, regardless of whether they were requested, and submitting them to new schools with

interpretative letters. It was decided that the Bureau was not in a position to carry on this educational work without having the expense covered. The matter, however, was referred to the executive staff of the Bureau for further consideration.

The question was raised as to whether next year's committee meeting might be scheduled at a time when it would not conflict with the regular evening question and answer session.

In view of the fact that the joint meeting of the two independent schools committees this year was very largely taken up with a discussion of the dates for the spring testing program, a motion was passed that the two chairmen, Mr. Hilkert of the Hill School and Mr. Weld of the Taft School, should confer and appoint a committee to present to next year's meeting a concrete plan of action in regard to this problem. After the meeting adjourned the following committee was appointed: Mr. Lefferts of Pomfret School as chairman, Mr. Fessenden of Fessenden, Dr. Parkman of St. Mark's, and Mr. Walton of the George School.

COMMITTEE ON SCHOOL AND COLLEGE RELATIONS

Members

<i>Name</i>	<i>Institution</i>
N. H. Batchelder	Loomis School
Frank H. Bowles	Columbia University
W. L. W. Field	Milton Academy
Josephine Gleason	Vassar College
Richard M. Gummere	Harvard University
Greville G. Haslam	Episcopal Academy
Frances L. Knapp	Wellesley College
William S. Learned	Carnegie Foundation
C. R. Mann	American Council on Education
Karl G. Miller	University of Pennsylvania
J. L. McConaughy	Wesleyan University
A. B. Meredith	New York University
Eugene R. Smith	Beaver Country Day School
Richard D. Allen	Providence Schools
John L. Tildsley	New York City Schools
Stanley R. Yarnall	Germantown Friends School

Eugene R. Smith, The Beaver Country Day School, Chairman

It is rather difficult to report for this particular committee because it seems to have a triple function. It is a producing committee, an affiliation committee, and an advisory committee. The last bit of producing it did was the Third Report published last fall, summarizing the replies from the colleges of the country in regard to comparable tests and other recommendations made by this committee.

On the affiliation side this committee represents the Educational Records Bureau in keeping in touch with all of the other work going on in this particular field. The affiliation resulted first in working with the Reports and Records Committee of the Eight-Year Study under the Schools and College Relations Committee of the Progressive Education Association. This committee has been studying methods of achievement recording, and is doing an unusually extensive piece of work. Little by little the results of their work will be made available in a form that should be of great use to schools. The committee has also been in close touch with the developments in the American Council on Education. The Committee on Measurement and Guidance of the American Council has asked Chairman Eugene R. Smith, with Dr. Ben Wood, to consider whether the time has come for a revision of the Council's cumulative record card. The Educational Records Bureau card is adapted from the American Council card, and this means that when and if this is undertaken the cumulative cards used by the Bureau will also be submitted to revision. This will require a considerable amount of work, for any attempt to improve recording forms and methods of obtaining information for records is laborious.

In its advisory function the committee has certain decisions that it wishes to submit to the Educational Records Bureau and to other agencies. One question put to the committee was this: "How shall the use of the records from the Bureau be financed?" As you know, the Bureau will keep for any

pupil a record from year to year of the tests he has taken, and send the record to any college upon payment of a two dollar fee. Neither the schools nor the colleges, for the most part, seem able to pay for the records. It was the opinion of the committee that the ultimate consumer—that is, the person applying to the college—might be expected to pay this relatively small fee.

The committee is very anxious to make it more possible for colleges to use the information available at the Educational Records Bureau and for the schools and the pupils involved to realize that this has permanent value and helps to present an all-round picture of the person whose records are being submitted. In trying to find a way in which this could be encouraged, the committee suggests that this recommendation be sent to the colleges which have had any relations with the Bureau: "We recommend to the colleges that they put on their entrance blanks a question as to the availability of tests made by such agencies as the Educational Records Bureau, and the request for such records if they are available."

The next step to work for is a freer exchange of records. In connection with this, the committee believes that investigation should be made of what kind of information is valuable for entrance, what is valuable for placement, and what can be used by personnel and administrative officers for guidance work in college. It may be that there should be duplicate or triplicate records sent to the colleges, or that there should be differentiation of material according to its value for different purposes. It was recommended that those working in this field try to find out the most effective way of making such differentiation, so that the greatest possible use can be made of information about young people.

The committee further recommends that there be an attempt to find out what are the common and fundamental facts which colleges want to know about candidates for entrance and that there be an attempt to prepare a form pro-

viding space for this common information, a form flexible enough to fit different institutions. At the present time there is a great deal of time wasted in schools in filling out totally different blanks for various institutions. If a form can be devised which will present the common information in the best form and still get sufficient flexibility, a real contribution in this field will be made.

COMMITTEE ON TESTS AND MEASUREMENTS

Members

<i>Name</i>	<i>Institution</i>
Richard D. Allen	Providence Schools
Ronald S. Beasley	Groton School
Emilie Bradbury	Germantown Friends School
Rosa Davis	Brearely School
Walter Dearborn	Harvard University
John R. P. French	Cambridge School
Howard V. Funk	Bronxville Schools
Donald Goodrich	Calvert School
E. D. Grizzell	University of Pennsylvania
Merle Kuder	Suffield School
John A. Lester	Friends Council on Education
A. L. Lincoln	Lawrenceville School
C. B. Mendenhall	George School
Chester Prothero	Beaver Country Day School
H. S. Stockmeyer	Buckley School
Arthur Traxler	Educational Records Bureau
Frank C. Wheeler	Choate School
Howard Williams	Western Reserve Academy
Della E. Wood	Radnor High School

John A. Lester, Friends Council on Education, Chairman

The test committee has been enlarged this year from eight to nineteen. The first business on the program was a report from Dr. Traxler on Bulletin No. 18, and on the procedures resulting in that bulletin. The bulletin is entitled *The Use of Test Results in Diagnosis and Instruction in the Tool Subjects*, and it should be in the hands of every school teacher who is interested in testing. It was con-

sidered whether that work should be extended to similar bulletins covering other fields, including social studies, higher mathematics, natural sciences, and foreign languages, and decided that, as progress could be made and material could be accumulated, that should be done.

The next matter considered was whether the Bureau, and particularly this committee, should experiment with the preparation of comparable tests in certain fields in which such tests are lacking and in which they are not likely to be prepared. This was discussed in particular in connection with an examination in general mathematics at the level of the junior high school. It was decided that school heads should be approached to determine whether such a test would serve a generally useful purpose.

Dr. Tyler reported on the development of testing materials by the groups associated with the Progressive Education Association, and Dr. Wood on the new Co-operative tests. Dr. Rothney also spoke briefly on proposed forms for recording pupils' progress in language.

Finally, a subcommittee of five was appointed to make recommendations for the spring testing program of 1937.

PUBLIC SCHOOLS ADVISORY COMMITTEE

Members

<i>Name</i>	<i>Institution</i>
Richard D. Allen	Providence Schools
F. H. Bair	Bronxville Schools
Willard W. Beatty	Office of Indian Affairs
John H. Bosshart	South Orange Schools
Paul D. Collier	Connecticut Department of Education
John C. Flanagan	Co-operative Test Service
Roy S. Haggard	Fitch High School, Connecticut
J. B. Johnston	University of Minnesota
William S. Learned	Carnegie Foundation
E. F. Lindquist	University of Iowa
A. B. Meredith	New York University
James N. Rule	Langley High School
J. L. Stenquist	Director of Research, Baltimore
Howard D. White	New Jersey Department of Education

Albert B. Meredith, New York University, Chairman

The Public Schools Advisory Committee held its meeting with six members, or representatives of members, and nine guests present. The public school members elected this year, as their representative on the Board of Trustees, Dr. Frederick Bair, superintendent of schools at Bronxville, to succeed Dr. James N. Rule of Pittsburgh.

The discussion of the evening was centered upon the Public School Demonstration Project as the major interest of the committee. Mrs. Herbert E. Hawkes, field director, reported on the progress made at each of the seven co-operating centers at Billings, Montana; Greeley, Colorado; Groton, Connecticut; Plainfield, New Jersey; Rochester, Minnesota; San Antonio, Texas; and Scarsdale, New York; the problems they are successfully meeting, and her hopes for the future of testing and guidance both in these centers and in the other schools that may adopt their methods.

The most significant developments during the past year she felt to be the increase in the number of tests used and the subject fields covered, the introduction in some cases and improved maintenance in others of cumulative record cards, the gradual absorption of the cost of testing programs in the regular school budgets, and the emphasis being placed upon the importance of using test results for adapting subject matter to the students' needs, dictating classroom procedure, and as a basis for effective guidance by properly trained and personally capable counselors. She also reported the appointment of part and full time guidance experts at several of the centers.

Even with this generally optimistic outlook, however, Mrs. Hawkes stressed the importance and need of further measures for the instruction of all teachers in the fundamental advantage to be secured from the immediate adaptation of test results in the classroom, particularly in motivation, placement, the development of a philosophy of education, the

planning of remedial programs, and direction and methodology of personal guidance.

In the second place she urged that there is still a great deal to be accomplished in educating administrators in institutions of higher learning to the idea that the cumulative records and summary statements based on them constitute important and convincing evidence in meeting admission requirements. Emphasis upon these principles Mrs. Hawkes believed would go a long way toward meeting the ideals originally set for the Project and making these centers, at the completion of the period of experiment, dynamic models for other schools to follow in educational testing and guidance procedure.

Interesting and encouraging reports were presented by the representatives of three schools serving as demonstration centers, Dr. Galen Jones of the Plainfield High School, New Jersey; Mr. Lester W. Nelson of the Scarsdale High School, New York; and Mr. Roy S. Haggard of the Groton High School, Connecticut. In Plainfield and Scarsdale, particularly, very forward-looking steps in the guidance program have been taken. One of the most important phases of the work in each center is that of teacher orientation in testing and guidance procedures. Teachers are coming to realize what can be done with the tests, and are beginning to do it. Experience indicates that the educational work may best be begun with the teachers, for thus they may very early come to realize that the tests are being used in the interest of the pupils rather than by the administration for the appraisal of teaching.

Symposium

Experiences of Schools Holding Membership in the Educational Records Bureau

STUDY HABITS AND SKILLS

EVERY school man who deals directly with children combines in some proportion a gay effrontery and a true humility. With a consciousness of the first and a prayer for the second, I undertook to present to this meeting a bird's-eye view of the problem of study habits and skills. I had in mind the confident and sweeping view of a bird in full flight; I, of course, the bird. Pencil sharpened and paper in front of me, and I am changed. My effrontery has gone from gay to desperate. My humility has become abjectness. The flying bird has vanished. I seek another subtitle and come to this, "How good ideas bog down."

A detached point of view will not "jell." I enter on a chapter of my own sad psychological history. It will not have a happy ending. I hope in the telling it will betray to me my own prognosis for me. I cannot believe that such prognosis will serve any of my listeners for themselves. It must not give them tranquillity. I shall have to be satisfied if my agony gives you confusion and hope.

I enter on my duties at School P. (This is code for Park School.) The time is several years ago. I am brought up with a turn at the occurrence of the First Report Period. It was like taking the temperature of the patients in a hospital ward. At the next regular faculty meeting these temperatures seemed important for discussion. Some of the students who had been talking to me about college choices had marks that were below "certificating" grade. Some of them had marks that were below the spaces provided on the chart.

Some had only asterisks footnoted by teachers' adjectives. Because I did not know the children very well, I asked most of the questions. I found that the marks bore very little relevance to ability. Much testimony was offered to explain the divergences between ability and performance. One phrase seemed to obliterate all others in my attempt to form a category of the evidence; that phrase was "study habits." Obviously, "study habits" was the thing to get at. This divergence must not be permitted to continue.

So we held another faculty meeting, planned to poll the faculty for objective evidence with regard to "study habits." Now was my chance to show my competence. We should exercise immediate, intelligent, and practical measures to repair or create study habits. This was the sort of problem that only awaited someone to undertake. We would develop specifics, and follow them up.

First, there was William. William was doing some rather extraordinary work in Biology Laboratory, but would not record it. When the teacher went on faith that William knew the why and the how of what he was doing, he was abruptly stopped by some astounding revelation of elementary ignorance in the boy. In the English class this boy showed the greatest variation between perspicuity and obtuseness. William woolgathered in class one minute, wise-cracked the class out of countenance the next. He was successful in the art room, successful in putting humor on the drawing board and humoring the others away from the spirit of work. Physically, he was timid. Obviously, what this boy needed was someone to sit down with him and see a job through with him two or three times. Then he would never want to do anything but complete a job. Enter here a technique of study habit practice! But there were some difficulties in the way. It came out that William was an only child. The father was not happy in his work. Father and mother, baffled, had washed their hands of their son's academic difficulty. Study habits? Yes! But this boy was in trouble.

Whatever there was of positiveness in his school environment was negatived in his home. Parents had no influence over him whatever. He had rotten bad study habits; in fact, he had none. It really wasn't fair to attempt rehabilitation without establishing a rapportement with all his adult associates. Anything else was temporizing. This is *not* a success story. When commencement came he was grudgingly graduated. He really has never graduated. After four years he still pokes his head in my door about ten times a year to report to me on progress in his development of his art and his wooing of a field in which this art may be useful. If his art and the field get together, it may sometime be a success story. It will take a real coincidence of the two to develop the study habits which the unconscious conspiracy of home and school delayed.

The picture as related was not come by easily. I have really read a translation. I have not lifted it out of imagination, but out of categories and adjectives. Like these: The boy is lazy; he has a superficial mind. No experience of satisfaction from completion. He is antisocial. He is a rejected child. He has an emotional block. His attention span is short. He inherits wishful thinking. Is there a mother complex? As if such a series of obfuscations was not enough, I found that the faculty had itself very nearly given up the fight. It had no coherent expectation, nothing into which to invite the parents to make it a unanimous demand.

Let us go back to this faculty meeting of several years ago. Next case, a girl. Her study habits were not negatively bad; they were positively bad. She was copying other people's papers. Half of her record of achievement was purloined. In twenty minutes of faculty meeting we found two barriers for her: one was the simple fact that her mother was totally unreliable, and through her deceptions prevented an understanding between father and daughter. The deceptions were well intentioned to save clashes. The other barrier was this:

here was a low-speed academic mind attempting an emphatically academic curriculum. It was obvious that merely telling her that she was kidding herself was not enough. And remedial reading wouldn't give the answer. Or diagnostic tests. Or a course in study habits.

Next case. This problem was accentuated by an abusive letter from the boy's father, blaming his failures on a lack of discipline in the school. This was pretty nearly a success story. The abusive letter was answered by an invitation to call. The call was three hours long, and resulted in the parents agreeing to expect less academically from their son, and the school agreeing to expect more. The result was a mutuality of responsibility and expectation in this boy's human environment. His work improved very nearly to the limit of his ability. He broke no more windows with snowballs. His attention span doubled and trebled.

Several things were apparent from our inquiry about these three young people. We discovered quite readily that we could identify and isolate faulty study habits, and that we knew techniques of training which came pretty near being specific remedies. We knew that these specifics were of no value where there was basic psychological difficulty. It was also clear that we as a faculty were easily tempted to escape into the psychology of the situation. I found that the chief barrier to the development of good study habits often does lie in a vaguely discernible but quite real psychological situation involving a larger area than the school. I found it equally true that there are techniques of study essential to making any psychological resolving successful. I discovered others zealously employed, but not credited for their vital effect on study habits. For instance, practice in outline, in the assembly and selection of material, which practice is deliberately employed in our school from kindergarten to college. And so I found a confusion and was myself confounded. Actually, we were using some specifics. Some were even factors inseparable from any study in the school. Others we

were intellectually aware of, but failed to use. We did not know how much good we were doing or how much neglect we were permitting.

You can readily see that my first flush of confidence for effective action on study habits had its ardor dampened. My simple progress from the first reports to the charming category "study habits" proved too, too simple. I was forced to conclude that establishing a category of study habits is nothing more than a convenient rhetorical repository for certain phenomena of a student's behavior, and that there is no short cut to the establishment of good study habits or to the correction of bad habits. Any diagnostic material is only a step in the solution of a problem. I shall have to admit that by this time my crusade so gayly undertaken had me groveling.

Another thing had by this time begun to formulate itself more clearly in my mind; namely, that there is in the human environment of every school child an air and element of expectation which packs a tremendous punch. It is true that the teacher is the first and best agency for the cultivation and development or remedy of study habits. It is true that a child grows to understand and participate in this development. It is true that the parents' part in the establishing of security is indispensable. Out of this triangle there always develops an expectation. For this expectation to have coherence, the teacher must always bring to bear full information about a child in each stage of his progress. It is obvious that as early as possible, at a time when the total human environment is largely home and school, these two must be brought into agreement as to their expectation from a child. By expectation I do not mean merely the expectation that a specific task shall be accomplished with a specific success. Such expectations come in due course, and are often properly spoken. I am thinking rather of the unexpressed imperative which occurs in the attitude of parents and teachers, a thing which is invariably sensed by a child. Parents must be in-

formed, and honestly informed, about the abilities of children in order that the interests of a child may find security and dignity. Parents can and must supplement the information garnered by the school. Too often it takes a child's major defeat to make a parent conscious of the child as an individual.

The school faculty is also prone to falter in its expectation. The illustrations in the early part of my paper, when added up, reveal this. No teacher would admit that nothing can be done in an individual case. Nevertheless, the ramified aggregate of many cases can and does dull and kill the general responsibility of doing something searching, constant, and continuous for each child. There are more exceptions to, than victims of, this escape. But these exceptions can endanger a faculty attitude, because they give enough external evidence of success to pass for entire success. For a faculty so to fool itself is just as stultifying as for a parent to do so.

There is nothing more constructively valuable in a child's life than informed, intelligent, and intelligible (if unspoken) expectation from his parents and his teachers. The parts of this expectation must make it harmonious; not identical, one the mirror of the other, but parts of a whole: appraisal, sympathy, hope, and suggestion. It may seem that I, too, have escaped into vagueness. Vague or not, the factor of expectation really colors the whole fabric of a school. Not only is it an imperative for a child; it is a dynamic in the thinking of a faculty. And in my own process of thinking about this, in following through marks to symptoms to specifics to psychology, I came on this: I found the first thing of substance on which to rest. I found a place from which to look back and a spot from where to look forward.

You who are erudite and experienced in these matters may, minutes ago, have asked the question, "Why did he not look in a book?" Well, he did. I found a whole literature on the subject. The bibliographies which have been made and kept up to date by Dr. Cecile Flemming and her associates

were an excellent clue. To peruse her bibliographies was to be cast down again. It was to destroy the dream of having our school contribute to the studies on the subject. Statistical superiority cannot be gainsaid. Here is the sort of thing found in the annotations of the bibliography. I quote:

Item: "The skill group improved 28 times as much as the control group. . . ."

Item: "In the first Experiment 122 pupils in the ninth grade were used to find what effect 60 work-type reading exercises . . . would have. . . ."

Item: "Questionnaires were submitted to 482 teachers."

My trouble was that our ninth grade has only 20 members and our faculty about 30. Eminence by statistics and control groups was and is simply out of the question. For this deprivation, however, I was easily consoled by the knowledge that School P. has plenty of fine children insistently needing help. Clearly the thing to do was to explore the literature on this subject for help for these children—sources from which to inform and document our policy. In the literature on the subject I found many subdivisions. A large group of studies was devoted to the place of the library in the development of study habits. Please follow my journey through these titles:

Item: "Interpretation of Library Instruction with High School Social Studies."

Item: "Informal Testing of the Use of Books and Libraries."

Item: "Integrating Library and Class Room through the Library Assembly."

Item: "Study of Students' Knowledge in the Use of the Library."

Item: "Teaching the Use of the Library."

Item: "Enriching the Library Lesson."

Item: "True False Test on Use of Books and Libraries."

Item: "The Library and the Study Problem."

Here, then, in one corner of the study habits structure, and not the cornerstone at that, I found a whole literature

within the literature of the field. I was aghast at the impossibility of finding time to master this corner. Daily life is pressing. Bills must be collected. There is the infinite series of interviews with children, parents, teachers, trustees, and committees. There was dismay in the limitless discussions, in the vague realm of a child's total psychological environment. There was dismay when I found our lack of system, or anyhow the loopholes in our own system. There was dismay when I found the things in home or school which had to be rescued before a child could be rescued. There was dismay when I faced a whole literature on each item in the field of study habits.

In the presence of my accumulated dismay I found it important to list some of the things which most schools have, and to think that a re-orientation of these existing elements and a re-statement of emphasis might actually succeed in putting us on our way. May I list some of the things I found:

1. Good study habits and appropriate skills were actually being gained in the growth and learning process of many of the children.

2. We had some techniques employed which were effective and informed.

3. Some of the papers in the study habit literature were descriptive of processes which our teachers had long since adopted and adapted.

4. It is not an incredible task for each concerned teacher to digest the materials on study habits and skills that directly bear on his own work.

5. In a small school we have a more direct opportunity to make our thinking and work effective.

6. It is possible to draw from any alert faculty a focus of attention on study habits.

7. At School P., we intend to think of each child as an individual and to consider him an increasingly conscious participant in his own education.

I look on this list, and it is not a clean bill of health. It is, however, a bill of health, and the one I have to go on.

I return now, not to my dismaying experiences, but to my thinking about expectation and imperative, the first oasis in my progress. I believe that, if I try to understand the implications of this imperative, such effort can ostracize dismay and commence the resolving of this problem. At the risk of repeating the descriptions of part of my travail, I will try to show what I mean.

Think of the expectation in the environment of every school child as three-fold. First, there is the corporate expectation of the whole school: faculty, children, and parents. Second, there is the intimate expectation of a child's parents and his immediate teachers. Third, there is the specific expectation of measurable achievements and degrees of skill and efficiency. These several expectations must be informed. For the third and specific expectation there exist measures and norms and standards to give answer. The aggregate of these answers is the information with which to inform the second expectation, the intimate one. Here is objective evidence to add in for the establishment of a point of view for parents. It is essential evidence for teachers. To this precise information should be added as objectively as possible a sense of psychological background of a child. Accumulation and sharing of this knowledge by teachers and parents is the absolute prerequisite of making the intimate expectation informed. To live and work with this information is to make it intelligent and intelligible. The expectation which flows from the entire corporate group is as essential as the other two. From it come the impulses that make the other two possible. This is essentially simple, although it may seem vague. And it is valuable. In outline it is merely this: It is the desire that each child shall grow at his own rate of growth and learn at his own rate of learning, that the springs of his nature will find outlet.

My part and your part toward good study habits is *not* to be dismayed. You and I can speed the focus of our several school groups by adding our energy to that of the loyal others.

We can give it continuity by the simple process of not forgetting it. Every book I open, every case history I become part of, eventually asserts or confesses that, regardless of all system and all statistics, the individual teacher is the indispensable resource for each child. Him or her we can encourage to energize his purpose and inform his judgment. Him or her we can help towards the inclusion of the parents in an effective triangle.

If I have said little or nothing about a child's own part in a development of study habits and skills, it is because I only know enough to write the prelude. That the child's part is of consummate importance is perfectly clear. That, too, is the subject of a body of literature. But this paper was to be and has been a chapter of my own sad psychological history. I said it would not have a happy ending. Because it does not reach far into the lives of children is the reason it does not have a happy ending.

HANS FROELICHER, JR.,
Headmaster, The Park School

THE USE OF CASE HISTORIES IN GUIDANCE

IN ORDER to perform successfully its function of individual guidance, the school must

(a) Accumulate continuously significant information of all sorts about each pupil.

(b) Record this information in clear and accessible form, as it accumulates.

(c) Make the accumulated information easily available to all teachers or school officers dealing with the particular pupil.

(d) Arrange for easy and frequent interchange of information, opinion, and advice among all teachers dealing with any pupil.

(e) Place the primary advisory responsibility for a given pupil squarely upon one person, whose contacts with that pupil are sure to be frequent and whose personal relationship is likely to be favorable.

After experimenting with various devices, the faculty of the Cambridge School has adopted the "case history" form of pupil record as a supplement to the cumulative record card furnished by the E. R. B.—which we have used with satisfaction for many years but which just is not big enough to hold the whole story. The case history consists simply of a number of sheets of ordinary typewriter paper, clipped together for filing, and bearing appropriate headings. A master copy is kept in the pupil's folder in the office files; a second copy is placed in the hands of the pupil's adviser teacher. Entries are made upon the appropriate sheet, and dated. Extra sheets can be added under any heading if required.

Procedures are as follows:

1. As soon as a pupil is entered for the school, all possible information is secured by the office from parents and previous schools. This is supplemented, whenever possible, by an interview with the pupil before school opens.

2. This information, after being edited by an experienced person, is immediately entered under headings A1 and A2 of the case history. A1 carries all items relating to family and social background, health history, noteworthy personal characteristics or achievements, etc. A2 carries the previous school history, in terms of names of schools, subjects and marks, objective test results, if any, "credit" for college entrance, etc.

3. The faculty assembles three days before the opening of school in September. At this time all pupils are assigned to particular teachers as their advisers, so far as possible on the basis of known or expected compatibility. Parts A1 and A2 of the case histories of new pupils are then placed in the hands of the appropriate adviser teachers, and tentative programs of study are arrived at by conference. (Pupils previously in the school have had tentative programs arranged in the preceding June, and have indicated their preference of advisers.)

4. Part B of the case history covers the first year of the

new pupil in the school, and entries are made under four headings, as follows:

- I. Personality and Social.
- II. Academic and Tests.
- III. Health and Sports.
- IV. Problems and Plans.

It is obvious that under the first heading there should accrue during the year a developmental record, consisting of observations made by any and all faculty members having dealings with the pupil. Unfortunately, critical points in the development of a child's personality cannot be arranged to coincide with the routine "marking periods" of the school year. The case history is ready to receive significant data at the moment when they become significant.

Those familiar with the cumulative record card of the Educational Records Bureau will recognize that under the heading "Academic and Tests" there must occur a duplication of items for which space is provided on that card. This duplication seems to us justified by the added convenience to the adviser teacher of having the whole story easily at hand, and ample space for recording special circumstances which cannot well be entered on the card. We use a wide variety of objective tests, in addition to the batteries recommended by the Bureau for its annual fall and spring testing programs. Tests of specialized aptitudes, in particular, are pertinent to the case history.

The third and fourth headings are perhaps sufficiently self-explanatory. Under "Health and Sports" would be recorded all recreational activities of the pupil, including those commonly termed "extracurricular." Finally, and most important, *it is the duty of the adviser teacher* to see to it that under the four headings there shall be accumulated a running record of the school experience of each pupil in his advisory group throughout the year.

5. During October, the adviser teacher must consult all other teachers dealing with each pupil in his advisory group,

and with the help of the headmaster prepare a letter to the parents, telling them what sort of start the pupil has made on the new school year. He may ask for an "interim report" in writing from any teacher, but must in addition confer with him personally at least once. Time for such conferences is arranged and scheduled by a "Program Committee." The letter serves also as a starting-point, to which subsequent evaluations of the pupil's progress can be related. We believe the scheme serves to promote on the part of the faculty a considerable effort toward learning the pupil before they undertake to teach him.

6. Part C of the case history tells the story of the pupil's second year in the school, under the same headings as Part B; Part D, the third year; and so on.

7. Instead of asking teachers to sit down at the end of each school term and then and there evaluate the personality traits of, say, fifty pupils on a five-point scale—a procedure which they commonly dread, and quite rightly contend is thoroughly artificial—we ask them to keep their eyes and ears open all the time for material which is pertinent to the case history. Each teacher is provided with a little green pad of "Personality Report" blanks. Any observed trend or incident which seems to him significant, he records on the spot, or as promptly thereafter as possible. The pad has a sheet of carbon paper in it, like a salesman's order book. One copy of his note goes to the headmaster's desk; the other into the mailbox of the adviser teacher of the particular pupil observed. The adviser decides whether the item is significant enough to be entered on the case history.

8. Toward the end of the school year—but not *at* the end—a second letter will be sent by advisers to parents, summing up the personality development of the pupil during the year. The case history is expected to furnish ample material for such a letter, which is intended to take the place of the usually perfunctory "comments" formerly incorporated in the term reports of academic progress.

Summing up—the case history, coupled with the “green slips,” furnishes a method for keeping the attention of teachers continuously focused on individual personality development, for amplifying the cumulative record of a pupil’s progress through the school, for keeping the adviser teacher informed of behavior observed by other teachers, and for reporting to parents in more than a perfunctory way the things they want most to know about their offspring. Unquestionably it asks of teachers—particularly adviser teachers—an intensity of preoccupation with the job of guidance and a cheerful expenditure of time and energy which only the best teachers will attain. But it seems to me the principal job of the school administrator is to provide that sort of teachers.

JOHN R. P. FRENCH,
Headmaster, The Cambridge School

NEW SOCIAL STUDIES TESTS

WHY new tests in the social studies field? For some years we have had factual tests for the traditional courses of history—and rather adequate ones, I think. Philosophies differ; some thought this factual product a rather important outcome, others looked upon it as somewhat incidental. For some years you have heard objections from the history teachers—these tests test nothing but facts, dates, names.

These teachers say: “We want our students to become skilled in handling those materials and study methods appropriate to the social studies. We want to develop in them certain attitudes, ideals, habits toward truth, other peoples, races, their civic and social environment; we want to develop interests, appetites. If you test only facts, we cannot help but emphasize factual history, we change our objectives to meet your test.”

I suspect sometimes that they are chiefly interested merely in not being tested. But the fact remains that there has been

a demand to be freed from such evaluation which tended to distort the course of study and to warp our objectives from the true purpose of the social studies as we professed them.

Now we have at our disposal some beginning efforts on the part of the test makers to meet our demands.

1. The new Wrightstone tests, for example, attempt to measure the student's ability to obtain facts from tabular, statistical material, from bar and line graphs, from index and table of contents, card catalog, dictionary, footnotes, and other reader's helps and guides.

2. They attempt to measure the student's ability to organize research materials—specifically, through separating relevant from irrelevant material, through sensing the logicity or coherence of a complete idea, through co-ordinating and subordinating material, and through outlining ideas under a stated topic.

3. They attempt to measure a student's ability to interpret facts (taken in these tests from the field of American culture and history). Specifically—to measure his ability to comprehend the meaning and significance of given facts, his ability to combine described facts and dates in relationships that indicate a trend, his ability to generalize or draw inferences, or make reasonable conclusions based upon given facts.

4. They attempt to measure a student's ability to apply generalizations to particular social studies events so that the specific event is understood in relation to basic social studies concepts.

5. A fifth part appeared in the preliminary forms of the Wrightstone tests—an attempt to measure civic beliefs, such as racial attitudes toward the Negro, the Japanese, or such as international and political attitudes and attitudes toward art, liberalism, and moral practices. The author hoped to obtain from this a composite index of the student's tendency to favor liberal or conservative civic attitudes and practices. But this apparently remains a task a bit too difficult to evaluate. At any rate, it did not get into the revised form.

A second promising beginning comes from Columbus. This past summer, a group of teachers representing some of the schools engaged in the eight-year study of the Progressive Education Association worked with Dr. Ralph Tyler at Ohio State University along lines somewhat similar to the efforts of Dr. Wrightstone. The approach was different, however, in that each institute member had an evaluation problem of a particular school in mind and a definite set of objectives for that school which set the problem.

The record of their work shows that there was common agreement on the desirability of developing in students the ability to draw sound generalizations from data given, and to validate or reject generalizations with which they might be confronted.

The summer was spent in developing procedures for measuring such abilities. Teachers selected problems from certain areas of experience pressing at the time for some school. Interest in war and peace, natural resources were common, however. The tests developed under such conditions are obviously not for general use but as attempts to measure certain of those phases of the social studies which seem hitherto to have defied measure; they are most interesting. Consider the following types:

Are you learning to formulate sound generalizations, a test of group opinion? (Really I think an attempt to evaluate political, social, moral, religious, economic attitudes, prejudices.)

A test of inferences—the ability to draw logical conclusions (even despite prejudices).

An appreciation test—an attempt to measure the student's ability to recognize the accomplishments of early people as significant to himself and to the development of civilization.

A scale of beliefs—a test of tolerance, an attempt to measure religious, racial tolerance, toleration toward political ideas and toward adults.

A test on democracy in its political, economic, and social aspects.

A test on patriotism (attitude toward foreign countries,

toward war, toward humanity, toward (respect for) government).

A test of ability to interpret data (on the basis of facts given which of the following statements are true, are false, might possibly be true but are not established by the facts given?).

A test of word-sensitivity (a susceptibility to catch-all phrasing, propaganda, name-calling, a measure of emotional bias and of objectivity of thought).

A scale of beliefs on the American farm.

Incidentally the mathematics group at the same institute worked along very similar lines.

"Are you learning to recognize and evaluate assumptions?"

"Are you able to distinguish facts from assumptions?"

"Are you learning to use sources of all kinds to help you discover that which you wish to know?"

And it is interesting to note that the materials upon which these tests are based would be recognized by most of us as belonging to the social studies rather than to mathematics as we usually think of mathematics.

Perhaps one may venture a word in evaluation of these efforts without forgetting that they are not presented for criticism and that they are as yet in the very preliminary stages of development. I think they are very promising, not so much in the field of evaluation as in motivation and guidance. If we think of evaluation as the weighing of the direct product of our teaching, as a means of certifying a given student or group to some agency, these are rather uncertain instruments. They measure maturity, perhaps, the ability to handle certain kinds of material, the presence of certain attitudes, readiness for advanced work, or the lack of these things. But whether we should lay much claim to the results as evidence of the success of our teaching is less certain. Does not intelligence enter in, home and community background, and maturity? We discover, for instance, the student is free from these racial prejudices. Is it with my help, or in spite of it? The student can reach logical con-

clusions. Is it intelligence, my help or the work of that socially minded mathematics teacher?

But as a means of discovering need for teaching, guidance, as a means of selecting experiences most profitable to the student while he is yet in our care, they may be invaluable. Used several times during the student's secondary school experience, we may note growth in certain directions and a readiness to approach problems on a mature or adult level—and this along with other personality information will be very valuable to the receiving teacher or dean.

What, then, will our social studies testing program include?

These tests, to be sure. We want to know that John is becoming more and more free from prejudice, emotional bias, that he is mature in his approach to problems in the social studies field, that he has certain attitudes and appreciations. We are anxious to know (measured as objectively as possible) the extent to which this student, John, has acquired the ability to use the tools of the worker in the social studies field, the ability to obtain facts, to organize facts, to interpret facts—powers, by the way, which are valuable not solely in the social studies field.

But I suspect that we are still going to be pleased if John also knows some of the facts. It is all right to be able to find facts, and to use facts, and to test our ability to draw conclusions, but it is also very convenient to have a few facts with which to begin.

We will not, therefore, eliminate completely our factual testing. May I suggest that we in our school would like some one to develop for us a new test in that field. With our emphasis on problems of modern civilization, we have gotten away somewhat from the course in medieval history, the course in modern Europe, the course in American history; there is much more continuity to the work and much more concern about the light which the past sheds on the problems of today.

Can we not have from the Co-operative Test Service in the

field of history an equivalent of the general science test or the literary acquaintance test which might be given at the beginning of the senior high school period and in the middle and at the end, not so that we can cram facts, not because facts are the sole or even the most important product of our teaching, not so that we can compare schools or teachers, but so that we can measure in general terms the student's increasing command of the factual background which seems to explain and interpret our current civilization.

SYDNEY V. ROWLAND,
Superintendent, Radnor Township School

TESTS AND SCHOLASTIC GUIDANCE

MOUNT HERMON was founded for the purpose of giving deserving boys of limited means an opportunity to obtain an education. In order to be true to this fundamental purpose, it is necessary to enroll many boys of limited ability.

This fall we have 260 new boys. The I. Q. range of this group is: 74 — 138, $Q_1 = 103.7$, $Md. = 112.5$, $Q_3 = 119.5$. Thirty-seven of these boys have I. Q.'s of less than 100, and 49 are above 120. My primary occupation is to give scholastic guidance to these boys as well as to over 300 others who have attended Mount Hermon more than one year. Our boys come from all kinds of communities and schools. John Jones comes from a farm home in northern Vermont. His people find it necessary to practice rigid economy. He has attended a small high school where there are two teachers and 30 pupils. He comes to us with his clothes only and a few hard-earned dollars for board and tuition. The idea of having 25 or 50 cents a week as an allowance to spend as he pleases is an unheard-of luxury. John Smith comes from a city home of moderate wealth. His first year of high school has been spent in a large metropolitan school where there are 350 teachers and 10,000 pupils. He always has had a liberal

allowance, and to be somewhat restricted in his expenditures causes considerable readjustment. High school records show that the two boys have done about the same grade of work. Obviously, the educational backgrounds of the two boys are far from the same. The results of scholastic aptitude tests are of invaluable assistance in properly guiding these boys.

Our testing program at Hermon is as follows: To every boy who applies for admission there is given the Otis Self-Administering, Higher Form C, test. If the I. Q. computed from this test is very far below 100, we usually advise that the boy be placed in some school where his advancement is not primarily dependent upon academic achievement. The morning after registration every new boy is given the Co-operative English Test, Series I. In the afternoon all boys take the Terman Group Intelligence test. The next day every boy takes the American Council Psychological test. The American Council tests are sent to the Bureau for scoring. All other fall tests are scored at Hermon. In March or April we give the Co-operative Achievement tests. In addition, a large variety of tests are used by teachers in their regular classroom work.

It is evident that the only guide, in so far as the period before the fall testing program is concerned, which is at hand to aid in placing a new boy in the proper subjects at the opening of school, is the I. Q. from the Otis test. Our procedure is to place a boy who has had one or more years of high school work where he would naturally have been placed had he remained in public school. We find that it is much more conducive to contentment and hard work to allow a boy who has had two years of French to try French III than it is to place him arbitrarily in French II. If he finds by trial that he cannot do the advanced course, he then will readily go back to repeat his second year's work. We must also watch for the brilliant but lazy boy who prefers to take the easy course to avoid work. In such cases the I. Q. is a great help. The Otis I. Q. is also of great assistance in

placing boys who have just completed their eighth grade work. Unless a boy in this group has an I. Q. of 110 or more, we do not ordinarily have him start a foreign language during his first year.

After school is well started, the second phase of the guidance work begins. A teacher reports that a boy is doing poor work in Math. III. The boy's record is examined, and the boy is called into the office. It is found that he had average grades in Math. I and Math. II; that his I. Q. is 116; that his A. C. I. S. percentile is 54. No reason appears why he should not be doing work well above the average. A diligent search is made to find the cause of his failure. In this search the results of the intelligence and psychological tests are invaluable, because in such a case you know that the boy is capable of doing the work irrespective of what he says. In talking with the boy just mentioned I should not tell him that his I. Q. was 116, or that his A. C. I. S. percentile was 54, but should tell him that the results of these tests placed him in the upper half of the school, and that his indicated scholastic ability was such that his general average should be 75 or above. I am also very willing to tell a boy just where he ranks in his class. Most boys respond to such treatment and make an effort to do the grade of work of which they are capable.

If I am talking to a boy whose indicated capacity is low, my whole aim is to encourage him. I tell him that he has to work much harder to master his assignments than many other boys, but that his achievement quotient may be just as high as that of his brilliant classmate. We find a boy's A. Q. by dividing his achievement by his indicated or predicted capacity; e. g., a boy's I. Q. and A. C. results show that he should make a general average of about 72, while his achievement is 85. His A. Q. is $85 \div 72$, or 118. Another boy whose indicated capacity is 56 achieves an average of 67. His A. Q. is 119. He is doing as well as the other boy and needs praise and a pat on the back.

The boy whose capacity is 73 and who achieves 52, thus having an A. Q. of 71, is a problem. We study his background, both scholastic and family; find out what his hobbies are; check with his adviser, the physical education department, and the psychiatrist. Ordinarily the reason for failure is found, but not always. When baffled by a case, I always feel a sense of defeat, though I am old-fashioned enough to believe that now and then there is a genuinely lazy boy who needs drastic treatment!

To help in our guidance work, we construct the Mount Hermon Percentile, or Equating Table. From this table we can equate I. Q.'s, A. C. I. S. percentiles, A. C. Total Scores, I. S. percentile of Co-operative tests into local percentiles or into terms of Mount Hermon per cent grades. I find that I am more easily understood by boys and faculty alike when I talk in terms of per cent grades rather than of percentiles. Early in the year each teacher is given the indicated aptitude of each of his classes. This serves as a helpful guide. We find that in over 75 per cent of our classes the achievement surpasses the prediction.

In all of this work I should be greatly handicapped if I did not have constantly at hand the results of the scholastic aptitude tests. I find that the I. Q. determined by the Otis and Terman tests seems to be most useful as a basis for predicting the scholastic success of boys just beginning high school, and the A. C. percentiles are more satisfactory for students of the junior and senior years. However, I have found the best measure of scholastic aptitude to be an average between the local percentile of the I. Q. and that of the A. C. I know that this is somewhat crude, and that there seems to be no mathematical or statistical reason for doing it, but it seems to work. I could not do this without our local equating table.

But, after all is said and done, the individual boy is the main consideration. We cannot damn him if he has a low I. Q., nor necessarily expect a genius if he has a high I. Q.

We have all seen many boys with low I. Q.'s who by sheer pluck, persistence, and constant hard work make an academic success of preparatory school, college, and life. We have also seen other boys with high I. Q.'s become dismal failures.

On our temporary record card, to us the "yellow card," we have in red each boy's aptitude in terms of per cent grades. The indicated aptitudes are figures respectively from A. C., I. Q., local percentiles, and average of the two. Underneath we place each boy's scholastic average for each report period. We also have on this card the local A. C. and I. Q. percentiles. These cards are available to each teacher. These data are indispensable to the administrative staff and advisers.

On our white or permanent record card, which is modeled after the E. R. B. record card, in addition to a boy's scholastic grades, we have his rank in class, general average for the year, A. C. I. S. percentiles, total score, and Terman I. Q., as well as his honors and an account of his extracurricular activities.

The last of March or early in April we give the Co-operative tests to all pupils in all classes except the Bible course. We feel that, in order to measure accurately our work by these objective tests, we must have all of our boys take the tests. Therefore, there are no special groups of superior students that alone take these tests. Neither are our boys coached for the Co-operatives. They are given an opportunity to see sample tests in the classroom and the library. We have the corrected tests returned and use them for review purposes. However, they are returned to the boys for classroom use only and are eventually destroyed. The scores from these tests are translated into grades, and in most of the departments they are given weight in determining a boy's final grade for the year.

Mount Hermon is an ardent supporter of the E. R. B. and finds its testing program of great value.

NELSON A. JACKSON,
Director of Scholarship, Mount Hermon School

INCREASING COMPARABILITY OF SCHOOL MARKS THROUGH TEST SCORES

STUDENTS, parents, and even some faculty members have considerable difficulty in understanding just what a percentile is, what such a rating means, and how it is to be interpreted in terms of success or failure. To simplify the situation for all concerned, we have developed at Loomis a system for converting the E. R. B. attainment percentiles into comparable school grades of A, B, C, D, and E. These grades are then sent home to parents and given out to students. They have been used by us in checking our own marking system and in reclassifying students. They have also been used very successfully in predicting success or failure on the College Board Examinations. While they are not as yet actually averaged into our final marks, they serve as limiting factors and certainly influence the instructor consciously or subconsciously in his own estimate of a pupil's worth.

Practically all of our students go on to college, most of them going to colleges requiring the College Board Examinations for admission. That being the case, our own marking system and the standard of our teaching should be comparable to the College Board level. That Board has found, in giving examinations from year to year, that, in spite of great care in making out the examinations, marked difference in the difficulty of the examination has developed. They have found that there has been, however, little difference from year to year in the caliber of the preparation of 5,000-odd students; in short, that roughly 35 per cent of the applicants should probably fail any general examination each year; that there was no reason for 40 per cent failing one year and 20 per cent the next. In other words, the percentage of failures should be the constant factor regardless of the difficulty of the examination. Hence, the 35th percentile is roughly the passing level. Since the group presenting itself for the College Board Examinations is probably only slightly more

selected than the group from the independent schools taking the Co-operative tests, we have adopted the national independent school 35th percentile as our passing level. Any student below that level is given a failing grade, which is in our system an E. If his rating is below the 15th percentile, his mark is F. That we have hit upon just about the right point for establishing a failing grade seems apparent from last year's results. We normally expect about 20 per cent failing grades in our own school marks, and last year, by converting percentiles into school grades on this basis, we obtained 19 per cent at E or F. Moving on up the scale, we gave any rating between the 35th and the 58th percentile, including the national independent school median, a D; from the 58th to the 80th, a C; from the 80th to the 97th, a B; and from the 98th through the 100th, an A. This scale was evolved partly by guesswork and partly on past experience. However, it gave us a very nice distribution with 7 per cent at A, 19 per cent at B, 26 per cent at C, 29 per cent at D, and 19 per cent at E and F.

The question is, of course, "How do these marks compare with the marks that the instructors have given, and what use can be made of them?" On the whole, they line up very well. Out of a total of over a thousand marks, 42 per cent were exactly the same mark that the instructor had given. The other marks showed variation of from one to two letters. Occasionally, there is great divergence. One case of such divergence occurred last year. A boy who had received failing grades throughout the year from his instructor received an A on the Co-operative test. This particular boy had been brought up in Germany, spoke German, and naturally could read extremely well. He knew most of the vocabulary and consequently made an excellent score on the examination, whereas he knew little grammar, was careless in all his written work, and consistently failed the essay type examinations which his instructor had been giving him. In almost every case where any great discrepancy in marking

exists, there is a very good reason which can be ascertained with investigation.

We have made a comparison of our own grades, the College Board grades, and these E. R. B. grades, and find that the average grade in each system is almost identical with the average grade in the other systems. However, when we examined individual grades, we found that the E. R. B. grades were closer to the College Board mark than our own grades were to either of these objective ratings.

Some of our faculty were interested and quite surprised to see what variation there was in the three systems. For example, in our group of students taking the College Board Examinations, there were 26 Loomis final grades of B. Of these 26, 2 received A on the College Board Examination; 14 received B; 8, C; and 2, D. In the same group there were 29 E. R. B. grades of B. Twelve of the 29 received B on the College Board Examination; 10 received C; 6, D; and 1 failed. The most startling fact was that of our own final grades of A, and we give A's sparingly, not one student received a comparable A on the College Board Examination. Yet one-fourth of the students making an A on the E. R. B. test made a comparable A on the College Board Examination.

Actually what it amounts to is that the conscientious, hard-working, unimaginative student tends to be given by his instructor a higher mark than he actually deserves, while the bright, lazy, imaginative student is penalized too much for his laziness and carelessness. The Co-operative tests tend to reverse this process by giving the bright student credit for everything that he knows and by giving the conscientious plodder credit for only what he knows. By averaging the two sets of marks, a much more accurate picture of the student's real attainment is acquired. Since final school grades should be a reliable index of attainment, the only conclusion that can be drawn is that the E. R. B. marks should be an integral part of that final rating. Just what the percentage should be is problematical. We have experimented by let-

ting the E. R. B. grades stand for 50 per cent of the final marks, with very satisfactory results.

I should like at this point to quote Dr. A. B. Crawford, of the Department of Personnel Study of Yale University, from an article entitled "Some Criticisms of Current Practice in Educational Measurements," appearing in *The Harvard Teachers Record*.

The most disappointing factor in our general prediction studies has proved to be College Entrance Examination grades. Despite the fact that these examinations, as all of us know, are prepared and graded with great care, investigation reveals that they fail satisfactorily to predict either students' subsequent college achievement generally, or their competence in specific subjects, particularly. . . .

In general, we find that a student's school ranking affords the best single measure of his educational promise for college Since school records are the backbone of our predictions, we are especially interested in means whereby grades and ranking from different schools of varying standards can be expressed in uniform, comparable terms. We believe that the Educational Records Bureau, by providing a standard, objective measure of school achievement, is doing much to strengthen this important criterion—and we find that the schools using its services furnish particularly reliable school-grade data.

If all schools adopted the same scale for converting E. R. B. percentiles into grades of A, B, and C, and then averaged their own marks on a 50 per cent basis, it is obvious that a much greater degree of comparability in marking in different schools would result. Further, those schools which have abandoned a marking system in favor of written comments would be provided with a ready method of furnishing other schools and colleges with information both simple to understand and easy to obtain.

RALPH D. BRITTON,
Department of Foreign Languages,
The Loomis School

THE PERSISTENCE OF INDIVIDUAL DIFFERENCES IN RELATION TO GUIDANCE

IN THE fall of 1934 the Plainfield High School received an invitation from the Educational Records Bureau to participate as one of seven schools in its Public School Demonstration Program. Formal acceptance of the invitation was made by the Board of Education at its regular meeting in November, 1934. This acceptance involved the approval of at least three additional services to aid in implementing the success of the project. These services were: first, the assignment of five teachers to half-time service as guidance counselors and another teacher to devote two-thirds of her time (now full time) to the direction of the testing program and to servicing the cumulative records; secondly, a commitment to a fall testing program using one scholastic aptitude test and one test of reading comprehension, as well as to a spring testing program covering the five academic areas for which tests prepared by the Co-operative Test Service are available; and thirdly, the installation of the adaptation of the cumulative record folder of the American Council on Education as made for the Kardex Visible Files by Remington Rand, Inc.

One may infer from this introduction, therefore, that we have available for study the data from two fall and two spring programs of measurement. The results from these two years are admittedly too limited to furnish the basis for really valid answers to the questions under consideration; namely, the persistence of individual differences in relation to guidance. When we have had time to follow the same group of pupils through at least the junior and senior high school periods, we may then be able to make a reliable generalization from the achievement test data. From this two-year program there are some facts, however, which probably indicate the general form which the answers may eventually take.

From the point of view of guidance it is important, first

of all, to discover the extent of differences in achievement among pupils pursuing the six different curricula offered by the school in June, 1936. For this purpose use is made of the results for 419 tenth grade pupils who were measured by the Co-operative English Test, Series I, Form 1936. Reference to Chart I shows, first, that whereas there are noticeable differences in the means, quartile deviations, and

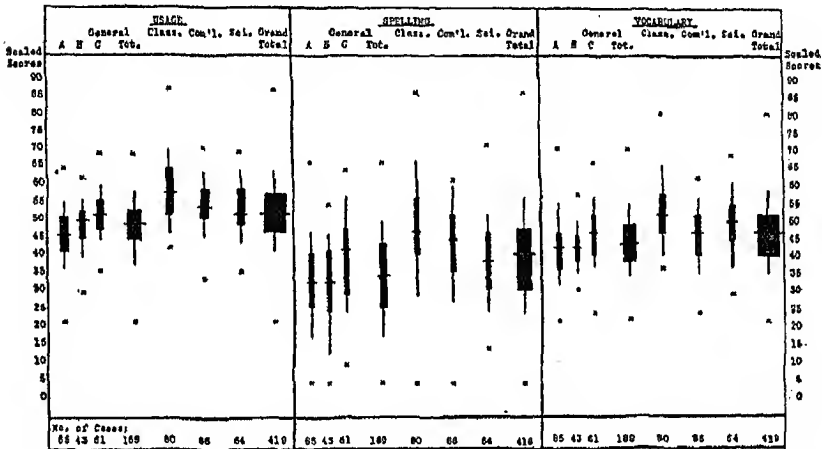


CHART I. Showing the standing on the parts of the Co-operative English Test, Series I, Form 1936.

the ranges of the distributions of the various curriculum groups, there is considerable overlapping of the distributions of the academic curriculum groups (Scientific and Classical) and the other curriculum groups (General A—Technical and Industrial Arts, General B—Home Arts, General C—Nursing and Normal School Preparatory, and Commercial curricula). Secondly, the classical and scientific curricula (college preparatory) are being pursued on the whole by pupils whose achievement in English usage, spelling, and vocabulary is in keeping with their guided selection. On all three parts of the test, three-fourths of the 80 pupils in the classical curriculum make scores above the means of the pupils in all curriculum groups combined. It will be noted, however, that

the guidance program has not been effective as yet, largely because of parental demand, in guiding out of strictly academic curricula those few whose achievement does not seem to justify their continuance therein. Thirdly, pupils of high achievement and superior scholastic aptitude are to be found in each of the six curricula. These become cases of particular study in order to make certain that possible future plans are being adequately protected. It is pertinent to remark in this connection that pupils are grouped for English instruction according to scholastic aptitude and achievement, irrespective of curriculum. It has been assumed, also, that pupils of superior achievement do not necessarily belong in college pre-

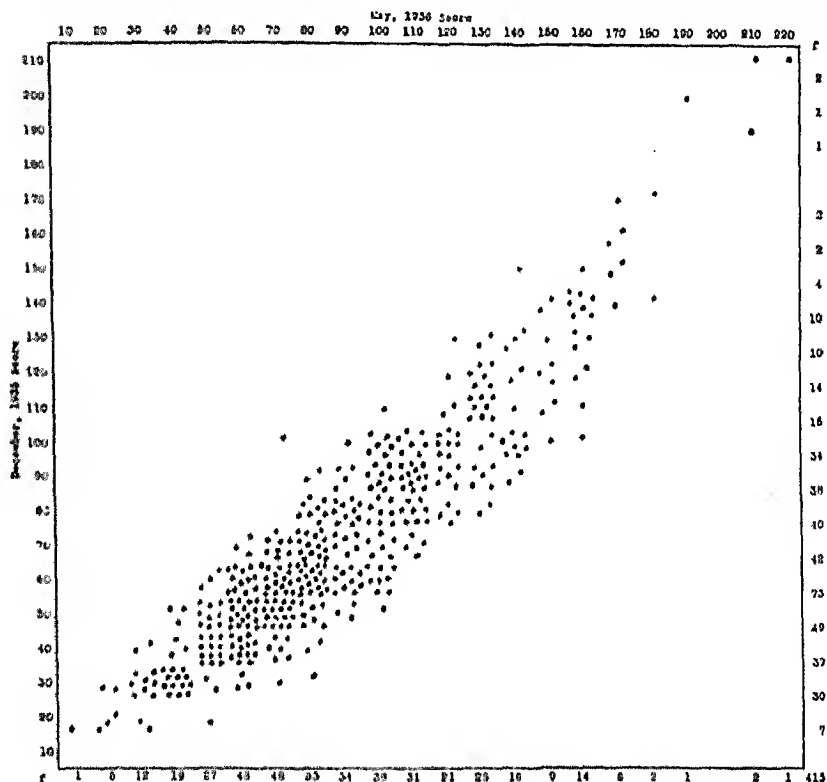


CHART II. The scatter diagram of the scores of students tested in December, 1935, and again in May, 1936, by the Co-operative English Test.

paratory curricula, that industrial and business pursuits solicit and need capable, non-college trained apprentices who may later become leaders in business and industry. These are, of course, not all of the observations which may be drawn from Chart I, but the limits of this discussion forbid additional comments.

To date we have only a few analyses of subject achievement data which bear directly on the question of the persistence of individual differences. The first of these is pictured in Chart II, which is the scatter diagram of the scores of 413 students tested in December, 1935, and again in May, 1936, by two successive forms of the Co-operative English Test, Series I.

It will be observed that the correlation between the results on these two comparable tests is very high, being .93 in fact, indicating that the relative standing of these 413 pupils in these comparable measures of the same subject matter is suggestive of strong persistence of individual differences. We have taken this to mean that rather marked differences in curriculum materials are demanded for those in the upper and lower ranges of this distribution. We have begun, therefore, to experiment with three quite distinct, not modified, English courses of study for lower, middle, and upper achievement groups. We are also interested to find, both by means of these tests and teacher judgment, when the law of diminishing returns on the materials represented by this test—usage, spelling, and vocabulary—have set in for individual pupils at various levels of the distribution, particularly those in the lower ranges, with the purpose of directing them into areas of instruction where greater returns may be forthcoming for the time spent. At this juncture it must be confessed, however, we are not at all certain as to what the more profitable materials may be.

The second group of facts which we have analyzed in an attempt to discover the persistence of individual differences are those obtained from the Co-operative Latin Tests. Chart

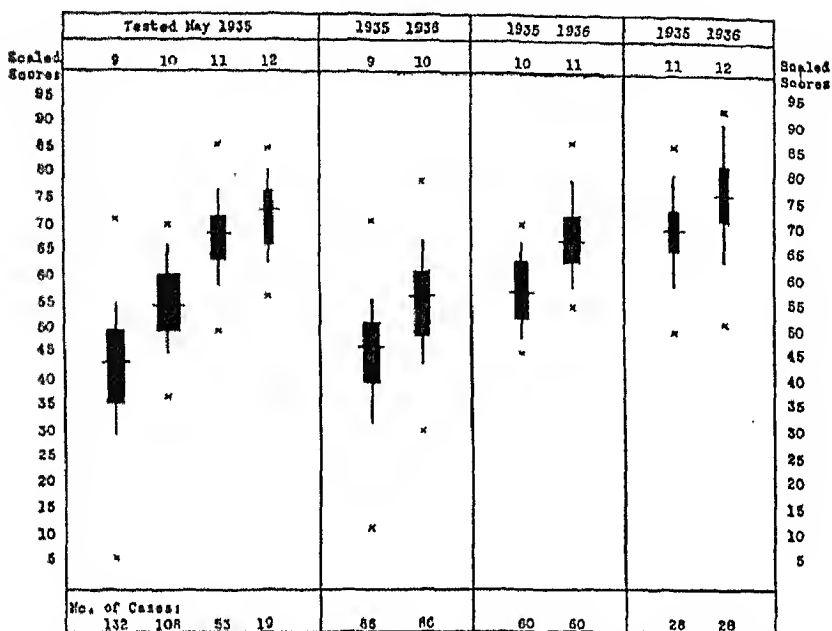


CHART III. Showing the results of a survey of the four Latin grade groups of the Plainfield High School in May, 1935, using the Co-operative Latin Tests, and the growth shown by the members of these groups who were retested in May, 1936.

III shows the results of a survey of the four Latin grade groups in May, 1935, using the Co-operative Latin Tests, and the growth shown by the members of these groups who were retested in May, 1936. The data on the 132, 108, 53, and 19 pupils in grades 9, 10, 11, and 12 respectively as tested in May, 1935, are shown in the portion of the chart at the left. Part of the gains shown from grade to grade are no doubt accounted for by the fact of retardation and elimination. When one examines the other three columns of the chart, however, one secures a clear picture of the gains which 86, 60, and 28 pupils who were retested in May, 1936, achieved as they progressed from grades 9 to 10, 10 to 11, and 11 to 12 respectively. Here again one is struck, first of all, with the amount of overlapping in the distributions, with a few

pupils in the ninth grade achieving scores superior to approximately 10 per cent of those who had studied Latin for four years. In the second place, it is to be noted that, although distinct gains are made from year to year, those who scored in the lowest quartile of the respective distributions in one year are, on the whole, the same individuals who score in the lowest quartile during the ensuing year. The few exceptions to this observation are readily explained by reference to general scholastic ability as measured by scholastic aptitude tests. It seems safe to generalize, therefore, to the effect that, other things being equal, an individual pupil studying Latin tends to maintain his relative position in the distribution of scores from year to year.

For the 60 pupils in eleventh grade Latin last year we had the results of Co-operative Latin Tests administered in January, 1935; June, 1935; and June, 1936. By studying the score points gained by those who ranked in the upper 16 per cent, the middle 16 per cent, and the lower 16 per cent respectively, we find that from January, 1935, to June, 1935, the average number of score points gained by these groups were as follows:

Upper 16%	.....	28.8
Middle 16%	.....	19.0
Lower 16%	.....	11.7

The differences in the average number of score points gained by these same groups from June, 1935, to June, 1936, are:

Upper 16%	.....	33.9
Middle 16%	.....	30.9
Lower 16%	.....	20.1

These results show gains for each group, but significantly larger gains for the upper groups. A similar study of 82 present eleventh grade pupils yields the following gain in average score points from June, 1935, to June, 1936, for the respective groups:

Upper 16%	46.4
Middle 16%	32.6
Lower 16%	23.0

These data seem to bear out the observation made some centuries ago that "to him that hath shall be given," as well as to indicate to counselors and teachers what are the gains that should be expected from pupils at various levels of the achievement distribution.

From the point of view of guidance these all too limited data are of value principally in indicating the importance of cumulating comparable information on the same pupils over a period of years so as to make possible an adequate answer to this question of the persistence of individual differences. The foregoing samplings seem to point to the persistence of these differences, but are all too limited and tentative to furnish the basis for a reliable answer to this question.

GALEN JONES,

Principal, Plainfield High School

